MODERN ACCOUNTING SYSTEMS

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TO

EDWARD P. MOXEY, Jr.

PREFACE TO SECOND EDITION

SECOND PRINTING, REVISED

THE basic principles of the accounting systems discussed in this book have not changed in the few years since the issuance of the second edition. The experience gained from the depression which followed the excessive business activities of the latter years of the last decade brought about the passage of many laws affecting the social, political, and economic life of the nation. Many of the new laws and edicts of newly created as well as older regulatory bodies have had a profound effect in the field of accountancy.

These legal requirements and the orders of commissions having regulatory powers over accounting practices have accentuated the tendency to standardize accounting methods in the various fields. The systems discussed in this book have not been immune from this tendency. Building and loan association accounting is being influenced by the standardized practices of the Federal Savings and Loan Associations; insurance company accounting centers around the requirements of state reports; banking and brokerage practices have been restricted by regulations of the Federal Reserve Board and the Securities and Exchange Commission. A new account classification for gas companies has been issued by the National Association of Railroad and Utilities Commissioners, and the classification of accounts for steam railroads has been revised.

In this revised printing no change has been made in the basic method of presenting the accounting principles applicable to the systems discussed. The new laws and regulations affecting accounting practices have been noted, changes in account classifications have been introduced, and some alterations have been made in statistical data. All sections of the book, with the exception of the section on municipal accounting, have been revised.

PREFACE TO SECOND EDITION

In the preparation of this book so many persons have given of their time and experience that it is impossible to thank everyone individually. The authors have received the fullest co-operation of the officers of the various institutions and enterprises studied. Many of them have reviewed the manuscript and have made helpful suggestions. The authors especially wish to acknowledge the help so willingly extended by S. Russell Smith, Auditor, and Charles Wood, Assistant Secretary, of the Penn Mutual Life Insurance Company; Robert J. Finley, Jr., Assistant Comptroller of the Insurance Company of North America; George A. Cook, Jr., Auditor of the First National Bank of Philadelphia; Edward A. Pierce, of Edward A. Pierce & Co.; Dr. Birl E. Shultz, Dean, New York Stock Exchange Institute, New York; Edward A. Marchant, of John Wanamaker, Philadelphia; L. Gaylord Andrews and Albert S. Lewis, of Strawbridge and Clothier, Philadelphia; Albert B. Bierck, late Comptroller of the Reading Company; William B. Kraft, Assistant Comptroller of the Pennsylvania Railroad; Frank J. Galisdorfer, of the Department of Audit and Control of the City of Buffalo. To Professor Hiram T. Scovill the authors are especially indebted for valuable suggestions.

The authors express their gratitude, for material contained in the Introduction, to Professor Edward P. Moxey, Jr., of the Wharton School of the University of Pennsylvania, to whom this book is inscribed. To Arthur D. Maxwell, of the staff of the Accounting Department of the Wharton School of the University of Pennsylvania, many thanks are due for his efforts in assisting in the revision of the text material.

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CHAPTER I

INTRODUCTION

Many of the leading accountants of the country in public and private practice have commented upon the importance of a knowledge of industry and industrial processes to the accounting officer. To the business man and the student of accountancy also, this knowledge is of primary importance. A thorough understanding of a statement of any type of business without a familiarity with the nature of its organization and operations is well-nigh impossible. It is hardly necessary to state that a knowledge of accounting principles in all of their uses is absolutely essential for any accounting work. A knowledge of industry may be likened to the materials with which the accountant deals. To these materials he applies the tools of his profession, accounting principles. These tools are useless if there is no material to which they can be applied. The purpose of this book is to study the application of accounting principles in detail to various types of industry; the problems involved have been classified in the order of their increasing complexity. In the first place, financial institutions, depending as they do largely upon the use of a cash book, present the simplest form of accounting from the standpoint of the books required.

Any business whose operations are confined to the receipt and disbursement of cash will have an accounting system built around the cash records recording the details of all receipts and disbursements.

In this group, marked variations in accounting methods will be found, and four types of financial institutions will be studied, namely, building and loan associations, insurance companies, both life and fire, banking institutions, and brokerage establishments. The accounting activities of a building and loan association are confined to the recording of its transactions in a cash book. The cumulative totals of the cash book furnish the bulk of the information for the annual report of the association. The next type of financial institution discussed is the insurance company; this section is divided into two parts, the first of which deals with fire insurance, and the second, life insurance. The accounting distinction between these two divisions of insurance is not so much one of books and records required, as of the calculation of reserves. Insurance company transactions are recorded through cash books and appear in the annual reports, as "Statement of Income and Disbursements." This statement does not, however, include a record of the amounts received and disbursed in those cases in which the result is solely an exchange of one asset value for another. While the principles of cash receipts and disbursements apply, therefore, in the insurance business, yet by reason of the automatic exclusion from the "Statement of Income and Disbursements" of amounts received and disbursed for capital purposes and the existence of important liabilities which are not reflected in the books, the principles underlying insurance accounting are necessarily somewhat different from those which have been discussed in the case of building and loan associations. The third type of financial institution is the bank. The cash book in this case is used to record all transactions irrespective of whether they represent items of income and expense or those dealing with assets and liabilities. The essential difference between the books and accounts of a bank

and those of a building and loan association or an insurance company, lies in the fact that in the case of a bank, the general ledger is just as much a necessity as is the cash book itself. We might consider the books and records of a bank as fulfilling the absolute requirements of debit and credit, and representing practically the perfection of a system involving cash book and ledger, wherein all items affecting any of the accounts are posted to the ledger from the respective sides of the general cash book. A brokerage establishment, the last of the financial institutions to be discussed, handles another commodity besides cash. The operations of such a business, consisting of the handling of money on the one hand and of securities on the other, have a marked influence upon the accounting system. The recording of the receipts and disbursements of cash appears in what might be designated as a cash book, but which in brokerage accounting is known as the blotter. Not only must the accounting system provide for the recording of financial transactions, but also for the recording of security transactions. In the case of the cash transactions the rule of debit and credit definitely applies, and this principle is of course reflected in the general ledger, which is self-balancing in that the total debits must equal the total credits. In the case of the security transactions recourse is had to a rule known as the long and short rule, namely, for every long there must be an equal and corresponding short, and the sum of all the longs must equal the sum of all the shorts. While brokerage accounting is essentially financial in character, it may be said to represent a transition between the financial group and the merchandising group, which will now be considered.

In the merchandising group, which comprises retailers, wholesalers, department stores, and branch stores, the accounting system is again dependent upon the characteristics of the business. It has just been seen that the stock broker divides his accounting system into two parts, cash transactions and security transactions. In the merchan-

dising group provision must be made for three divisions. The first of these deals with the recording of merchandise purchases, the second, the recording of merchandise sales, and the third, the recording of cash receipts and disbursements. Each of these three units of the accounting system, in the large organizations, is handled by a distinct department. Since every problem of the retailer, the wholesaler, and of branch store management is found in the department store, it has been selected as the best illustration of the accounting problems of this particular group.

In the third or manufacturing group, the production of the finished article is the main purpose of the business organization. All purchases are classified. Labor is applied to the material and the result is a finished product which is sold to the jobber, the retailer, or in some instances direct to the consumer. The accounting system of a manufacturing business consists, therefore, not only in the accounting for sales, and receipts and disbursements of money, but on the purchase side it must provide a proper accounting for the elements entering into the cost of the finished product—material, labor, and indirect expenses. For the reason that a company engaged in the production of gas for heating and lighting purposes furnishes a good illustration of the manufacturing processes involved, and, in its accounts must conform to the requirements prescribed by public service commissions, gas companies have been selected as best suited for our study.

It is only a step from the gas company and its problems to the public service corporation. Public service corporations constitute a group in themselves. Since they render a definite service to the community, the costs of this service must be classified and provided for in two main groups of accounts, the first relating to maintenance cost, and the second to operating expenses. A railroad company furnishes a good subject for study as a type of the public service group. Although the railroad business is one of immense volume and great detail, its accounting problems are simpli-

fied by an effective auditing control and by the summarizing of information for journal entries. The control over railroad rates by the Interstate Commerce Commission has given rise to a uniform classification of accounts and to uniform financial and operating statements.

The various organizations discussed up to this point have been those organized for profit. Such organizations involve the investing of capital for the purpose of earning a profit. The next group, called the public accounting group, is made up of those organizations which are not operated for profit. It includes hospitals, fraternities, social and religious associations, national governments and their political subdivisions. Accounting in the public group centers around a budget. The accounting system of the municipality, which has been chosen as representative of this group, has in many cases reached a state of high development. This statement unfortunately cannot be made in connection with many charitable and educational institutions, and fraternal, religious, and social organizations. There is no reason why all of these cannot employ advantageously the principles used by municipalities. In this connection it is interesting to state that the budget, which serves as the basis for all government activities, has been recommended by commercial concerns, and it may not be many years until the old distinctions existing between the accounting systems of public and private concerns are entirely eliminated.

In each system to be studied, emphasis will be placed upon the accounting features peculiar to each business. The text is not intended to be a manual of procedure, nor does it aim to give to the reader a minute knowledge of the "why" and "how" of every accounting problem which might arise.

The accounting student, the practicing accountant, and the business man, in whatever line of endeavor he may be placed, will, it is felt, be benefited by a study of the contents of this work. An effort has been made to show the

man with a general knowledge of the principles of accounting how to apply these principles to the problems of typical organizations. It is hoped that all the discussion and analysis of actual accounting practice will be readily understood.

PART I

BUILDING AND LOAN ASSOCIATIONS

CHAPTER II

PURPOSES AND ORGANIZATION OF BUILDING AND LOAN ASSOCIATIONS

THE important rôle played by the building and loan association in the United States is not generally known. We are prone to look upon savings and other banks as the institutions which are responsible for thrift among our people. A glance at the statistics covering building and loan associations will readily bring home the tremendous influence exerted by these organizations.

In 1893 there were 5598 associations in existence in the United States. Their membership totaled but 1,359,366, while their assets were $473,137,454.[1]

During the year 1908–1909 the number of associations was 5599 while the membership increased to 1,920,257 and the assets increased to $784,175,753.[2]

In the year 1935 there were 10,534 associations, state and federal. Membership totaled 7,059,567 and assets aggregated $5,888,710,326.[3]

[1] Report of the Commissioner of Labor, 1893.

[2] Proceedings of the Seventeenth Annual Meeting of the United States League of Local Building and Loan Associations, 1909.

[3] Report of Secretary, Forty-fourth Annual Convention of the United States Building and Loan League, October, 1936.

Nature of Building and Loan Associations

A building and loan association is a co-operative organization operated for profit. The trend of court decisions, however, has been to regard such an association as a partnership with corporate rights. An association of this character is composed of a constantly varying number of individuals, who are termed members or shareholders. In order to become a member or shareholder it is necessary to subscribe to the stock of the association, the payments being made in small instalments called dues. The members pay these dues into the treasury at fixed intervals, usually to serve as the basis for loans to those shareholders who may desire to purchase real estate.

Purpose

The basic purpose of a building and loan association is to help individuals either to save money or to borrow money at a fair rate of interest, or both. The banding of individuals into a mutual association makes possible the accomplishment of this purpose with greater benefits than would be probable under individual initiative. An individual usually cannot accumulate enough money to purchase a home until a long period of years has passed. Generally the money cannot be borrowed from a financial institution, for the individual has no collateral to offer as security for the loan. If, however, under the building and loan plan a person is advanced the money and is given a long enough period over which to repay the loan together with the interest, the ultimate ownership of real estate by the individual becomes relatively easy. This is made possible for the person with small resources through these associations. Each member pledges to pay into the treasury a given amount of money at stated times with the understanding that the sums collected are to be loaned to members for the purchase of real estate, which is to serve as collateral security for each loan. The borrowing member in turn is

called upon to pay, in addition to his dues, a fixed rate of interest and oftentimes a premium for the use of the money. The net profit derived from such a transaction is distributed among all the members of the association.

The opportunity afforded for systematic saving with a profitable rate of return serves as an incentive for non-borrowing members to join a building and loan association, for each member of the association, whether a borrowing or a non-borrowing member, benefits directly by the co-operative plan.

Building and loan associations, moreover, serve a public as well as a private purpose. They have had a stabilizing effect on communities, for the ownership of a home is generally productive of good citizenship and high economic and social ideals. The numbers who have purchased homes through such associations are countless. Likewise many persons have been led to save goodly sums of money through membership in these societies.

Investments in building and loan associations, in most instances, have proved to be safe and profitable ones, and the mutuality of the plan has been conducive to a strict adherence to the rules of the association on the part of the members. The plan of systematic payments has encouraged members to exert every effort to meet obligations as they fall due. Furthermore, the desire to "clear the home" assures the association of regularity of payments by most of the members.

Building and Loan Associations Differentiated from Other Corporations

The very nature and purpose of a building and loan association requires that stock purchased by members be paid for in small weekly or monthly instalments until such time as the amounts paid in plus the apportioned earnings equal the par value of the stock. Such a condition does not exist in the ordinary corporation since a shareholder must pay for his stock upon purchase or within a relatively

short period of time. In the building and loan association earnings are accumulated rather than paid out as dividends each year. These earnings are apportioned among the shareholders on the books of the association. These earnings plus the dues paid in are accumulated until they equal the par value of the stock. In the ordinary corporation, earnings are paid out as dividends either in the form of cash or stock.

Another point of difference is that building and loan association stock is canceled when fully paid. In other corporations the stock is issued only when fully paid. In the former case full payment means that the stock goes out of existence. In the latter case full payment means that the stock comes into existence. A further distinction that should be noted is that, in a building and loan association, capital stock consists of total dues paid in plus net profits, and is a constantly varying amount from month to month. In the ordinary business corporation the capital stock is usually fixed in amount. Finally, it may be stated, that the average building and loan association will cancel a member's stock in case of his desire to withdraw and will pay back to him the "withdrawal value" of the stock. In any other corporation withdrawal is accomplished by the sale of stock to others.

Types of Building and Loan Associations

1 *Terminating Plan.*—The first building and loan associations in this country of which we have any record were formed over a century ago. They were of necessity very small, and restricted to the communities in which they were formed. Funds available for loaning were limited and as a result profits could not accrue very rapidly. The members were to enjoy the privileges of the association over a fixed period of time, at the end of which the association was to cease to operate. In many instances associations were started with insufficient numbers and it became necessary to seek new members. But where the benefits to be derived

from membership in associations became generally known, others applied for membership. In order to meet both situations, rulings were passed by members permitting outsiders to join, provided each applicant paid into the association an amount representative of the book value of the stock. Thus the earliest type of building and loan association, by issuing shares at a stated time and by compelling a person joining at a later date to pay in an amount equal to the book value of the purchased shares, maintained uniform values for all shares of the association.

A weakness of associations fashioned on the terminating plan was that any person desiring to become a member after the inception of the association was obliged to pay in a sum equal to the book value of each share subscribed to, in addition to incidental fees. This often proved a hardship on persons of average means and often discouraged membership. Another drawback was encountered with respect to loans. After the association had been in operation for a few years it became difficult to make loans because the borrower would be allowed only a relatively short period of time before the termination of the association for the repayment of the loan. This resulted in the accumulation in the treasury of funds which were difficult to invest and which therefore were not earning profits for the association. Consequently the time required for the stock to reach the maturity value was considerably prolonged or else the association was obliged to dissolve before the maturity value had been reached. The fact that it was not until another plan had been devised that the rapid growth in the number of building and loan associations took place, proved conclusively that the advantages of the terminating plan were not all that were desired.

2. *Serial Plan.*—The idea of issuing stock in series at stated intervals was evolved to correct the shortcomings of the first type of association. The plan was an elastic one which provided for continuity of operation so long as new series were issued. Each association determined on the

interval at which series were to be issued. Some adopted a quarterly basis, others a semi-annual, still others an annual basis, for the issuance of new series. Each share of stock in a given series participates equally in the profits. Thus where new series are started at yearly intervals, it is readily seen that at the end of the third year, for example, the profits of the association must be apportioned over all the outstanding shares represented by the three series. Justice alone dictates that the first series receive a proportionately greater amount of the profits than the second series, and that the second series take precedence over the third series. Shares of the same series have equal valuations at any given time, and mature at the same time. Therefore it is possible for new members to be taken into the association whenever a new series is issued without involving payments of back dues. By this plan the longevity of the association is insured, for the new series that are issued from time to time usually more than offset the series that are being matured periodically. The greater percentage of building and loan associations are organized on this "Serial Plan" basis.

3. *Permanent Plan.*—The serial plan has been enlarged on, in some instances, however, by a number of associations which feel that better results can be secured by not limiting the issuance of stock to definite series. Consequently persons are permitted to join the association on any meeting night during the year without the payment of back dues. But while this so-called permanent plan of building and loan association affords a convenient means for subscribing to new shares, it also complicates the accounting, inasmuch as each new share may in itself constitute a new series.

4. Federal Savings and Loan Associations.—Another type of building and loan association, incorporated under federal laws, is that known as the Federal Savings and Loan Association. These associations, created by Act of Congress in June, 1933, are local, home financing institutions chartered

by the Federal Home Loan Bank Board. Four types of shares are issued. The first type known as the Instalment Thrift Share provides for the saving of a definite sum each week or month. A second type of share is known as the Optional Saving Shares. These shares are intended for those who save irregular amounts at irregular intervals. Prepaid shares, providing for lump sum investments, may also be acquired by investors. A fourth type is known as the Full Paid Income Shares. Dividends are credited twice a year to the accounts of the owners of the first three types but are paid in cash semi-annually to the holders of Full Paid Income Shares.

The investments of these associations are very carefully regulated by the Federal Government and the investment of each shareholder is insured up to a certain maximum amount by the Federal Savings and Loan Insurance Corporation. Direct reduction or amortizing mortgage loans may be made. Amounts paid by the borrower are first applied against interest charges and any balance remaining is applied in reduction of the mortgage. Loans without shares may also be made.

As of January 31, 1937, there were 1228 of these associations with assets of approximately $820,000,000 and with shareholders numbering about three-quarters of a million.[1] Their growth has been very rapid. Many of these associations are former state-chartered associations which have, for one reason or another, decided to incorporate under federal laws.

Classification of Stock

Building and loan associations may issue stock either in the form of single shares or double shares. In the case of a single share the member pays a fixed amount per share, while in the case of double shares exactly twice the amount is paid in. Consequently the profits on double shares accumulate more rapidly and these shares mature at an earlier date than the single shares.

[1] Federal Home Loan Bank Review, Volume 3, No. 6, March, 1937.

Besides these single and double shares, many associations issue full-paid stock. Stock of this class resembles an issue of any other corporation in that it is paid for at the time of issuance. Ordinarily such shares earn a fixed rate of interest. The issuance of such full-paid stock enables the association to obtain money in lump sums for loans to members. This type, however, represents only a minor portion of the stock issued by a building and loan association since the great majority of the members cannot afford to pay for shares in advance.

Organization of Building and Loan Associations

Incorporation.—The first building and loan associations were unincorporated, but from 1849 on, acts were passed by several states with respect to these associations. In Pennsylvania the Act of April 29, 1874, and its supplements, and in New Jersey the Act of 1903 with Amendments and Additional Acts, form the basis for the incorporation of building and loan associations in these states.

A study of laws of the various states reveals generally similar requirements throughout the country. The laws of New Jersey will serve to illustrate the general principles involved:

"Upon executing, recording and filing a certificate pursuant to the Act, nine or more persons, citizens of the state, may become an incorporated association.

"The certificate of incorporation shall be signed in person by all the subscribers to the stock named therein. This certificate must contain the following information:

I. The name of the association.

II. The city or other municipality where it is to be located and its business transacted, which shall be within this state.

III. The object for which it is formed.

IV. The number of shares subscribed for by the incorporators and by each of them, and the amount fixed as the value of each share when matured or

full paid, and the number of shares to be subscribed before the association shall begin business, which shall aggregate not less than ten thousand dollars in value when full paid.

"The purpose of an incorporated association is that of assisting each member and all who may become associated with the members in acquiring real estate, making improvements thereon and removing incumbrances therefrom by the payment of periodical instalments, and for the further purpose of accumulating a fund, to be repaid to its members (subject to the right of earlier redemption) who do not obtain advances for purposes above mentioned when the funds of such an association shall amount to a certain sum per share, to be specified in the certificate of incorporation."

By-laws

As soon as a building and loan association receives its charter of incorporation it is essential that a set of by-laws be drawn up and adopted by the members of the association. These by-laws govern the association, subordinate, of course, to the charter issued to the association by the state. The by-laws should set forth the time and place of meeting of the corporation, the powers and duties of its officials, and such other matters as may be pertinent and necessary for the business to be transacted, and may contain penalties for the breach thereof.

Duties of Officers and Directors

The business of a building and loan association usually is managed by a president, a vice-president, a secretary, a treasurer, a solicitor, and a board of directors or trustees. The officers are elected annually and continue in office until their successors are elected. The duties of the president, vice-president, and treasurer, correspond with those performed by similar officers in other business organizations. The secretary is in reality the chief accounting officer of the association. He is required to keep the books and to

present an accurate record of the value of the holdings of each member and of the financial status of the association. He is the custodian of the seal of the association. All payments of money by the treasurer must originate from orders drawn by the secretary.

The magnitude of the work of a building and loan association with respect to mortgages on properties of borrowing members, securities, etc., necessitates the employment of a legal expert. Therefore, a solicitor is appointed to look after the legal affairs of the association.

The board of directors usually is given full power to initiate and direct the policies of the association, provided that said policies are considered at a meeting of the board at which a quorum is present. The members of the board are elected by the stockholders at the annual meeting for a period of one year.

The board of directors is required to hold regular meetings for the purpose of receiving dues, interest, fines, etc., making loans of money, and transacting any other business that may be necessary. The secretary of the association keeps a record in the minute book of the discussions and resolutions of the board of directors. This written record forms an integral part of the accounting system of a building and loan association since practically all the transactions of an association are approved or acted upon by the board before they are entered into. Thus, there may be found in the minute book all authorizations for loans on real estate, for stock loans to members, for withdrawals by members, and for the payment of the ordinary expenses incurred since the last regular meeting. Mortgage foreclosures and the renting or repairing or the sale of real estate must likewise be acted upon by the board.

CHAPTER III

OPERATION OF A BUILDING AND LOAN ASSOCIATION

Dues, Interest, Fines, and Premiums

Building and loan associations usually meet once a month, and at such meetings dues, interest, fines, etc. must be paid. Payments on the shares of a given series must be continued until, with the apportioned profits, they are sufficient to pay the maturity value of such shares. In case a member fails to pay regularly whatever he owes in respect to dues, premium, or interest, a nominal fine is imposed. This is to repay the association for loss of profits incurred through non-payment of money due. And it may be noted that in many associations each person becoming a subscriber for stock is required to pay with the subscription an entrance or admission fee of approximately twenty-five cents per share.

When money is in great demand, building and loan associations usually sell what money they have to loan to the highest bidders, in the order of their respective bids. The amount of money which each borrower offers to pay for the loan irrespective of interest is known as the premium.

Making of Loans

Types of Loans.—One of the primary purposes of a building and loan association is the loaning of money to members. A loan may be in the form of an instalment mortgage loan, a straight mortgage loan, or a stock loan. It is but natural to assume that building and loan associations require security in the case of loans. Real estate,

building and loan association stock, mortgages, and bonds may be accepted as collateral to protect the association.

Mortgage Loans.—Some associations will only take a first mortgage; other associations will accept a second mortgage as security for a loan. When a person desires to borrow money secured by a mortgage on real estate, he is required to fill out an application blank provided by the association. On the blank must be stated the amount of the loan desired, the premium, if any, to be paid, and a detailed description of the real estate, including the location, the nature of the building and the dimensions of the lot, the assessed valuation of the property, the purchase price, the estimated amount of rent obtainable, and whether the property is clear, mortgaged, or subject to liens.

The application for the loan is discussed at the next meeting of the board of directors. A property committee is appointed to make an investigation of the property to determine the advisability of granting the loan on the security offered. If the report of the property committee is favorable, the board of directors instructs the secretary to notify the solicitor of the association to prepare a bond and mortgage, to perfect the evidences of the title, and to execute the necessary documents. If the mortgage loan is an instalment one, the borrower must become a member of the association and subscribe to shares of stock, the maturity value of which will be equal to or greater than the amount of the loan.

Should the loan be a straight mortgage loan the procedure would be similar to the preceding, but the borrower would not be obliged to become a member of the association. Instead of paying monthly dues and interest he would only be obliged to make his interest payments and to meet his loan in full at the due date as specified in the mortgage. In some cases, however, a borrower is permitted to pay off any portion of the loan or the entire amount before its maturity.

Stock Loans.—Often members of the association are

desirous of obtaining money, but do not wish to withdraw their savings from the society. Therefore, they make application for a loan and offer to pledge their stock holdings as security. Associations differ in their regulations regarding the amount that may be borrowed on their stock. The withdrawal value of each share held by a member usually is the basis for such a loan. From 90 to 95 per cent of the withdrawal value generally is fixed as the maximum sum to be lent to a member who offers his building and loan association stock as security. On such loans interest at the rate of 6 per cent per annum invariably is charged, and the borrower is obliged to pay the interest in monthly instalments until the loan is extinguished.

Real Estate

Unless loans are made to worthy borrowers, a building association will be unable to make any profits; and unless the loan is secured by ample collateral, heavy losses may have to be borne by the shareholders. In granting mortgage loans, the directors endeavor to protect the association stockholders against possible losses by stipulating that the fair market value of the property mortgaged shall be considerably in excess of the amount of the loan. Thus on a house costing $10,000.00, an association might advance $8000.00 secured by a mortgage. The home buyer has an equity in the property which he is desirous of protecting. If the monthly payments to be made to the association are not forthcoming regularly, the directors might have to foreclose on the property to protect the association. Property acquired in this manner very often is rented, thus giving rise to an additional source of income. As rental income is sometimes exceeded by the expenses of carrying the real estate, directors endeavor to dispose of real estate holdings at the earliest possible moment.

CHAPTER IV

INCOME AND EXPENSES OF A BUILDING AND LOAN ASSOCIATION

A BUILDING and loan society has few sources of income. This income is obtained from its own shareholders, except such amounts as are received as interest on straight mortgage loans or from miscellaneous sources such as rental for property obtained through foreclosure proceedings. The interest and other charges made for the use of the association's funds are contributed by the borrowers themselves. The excess of earnings over the expenses is called profit and is divided among the shareholders according to one of several plans. No money distribution is made when profits are divided, but the profits are added to the dues and recorded on the ledger, if one is kept, as increasing the value of the subscriber's equity in the association. When the dues on a share of stock, together with its proportion of profits, equal a specified amount, generally $200, the stock is said to mature. Upon the maturity of the stock, full payment is made if the stockholder is not indebted to the association. In those instances where the stockholder is indebted, the amount of the indebtedness is deducted from the maturity value of the shares.

Main Sources of Income

Entrance Fees.—Upon taking out shares in a building and loan association, the stockholder generally pays an admission or entrance fee, which may vary with the society issuing the shares. This charge is nominal and very seldom exceeds twenty-five cents per share. This entrance fee is not a partial payment on stock, but is regarded as part of

the earnings of the association. An association which has had an unsuccessful year in other respects may conceivably make a very good showing if the number of shares issued during the year is sufficient to bring the earnings from entrance fees well above the average.

Interest on Loans.—By far the greatest source of income is interest on loans. It must be paid by the shareholders every month until the amount borrowed is either repaid or deducted from the matured value of stock which has been pledged as collateral. Let us assume that A desires a loan of \$4000 from X Y Z Building and Loan Society. He fills out an application, which is approved. He is requested to subscribe to 20 shares of stock, having a maturity value of \$200 each. Monthly payments of dues and interest are made on his shares and on his loan. If the dues are \$1 per month pèr share he will pay \$20 for dues. If the association is charging 6 per cent interest the monthly interest will be \$20, representing $\frac{1}{12}$ of \$240, the interest for one year on \$4000. This interest payment must be made monthly until the stock matures, if the loan is not reduced in the meantime. The amount paid monthly for dues is not a reduction of the loan, but represents the monthly instalment on the stock, which is held as additional security for the loan. It can be seen from this that the building association has, in addition to the mortgage for the loan, the constantly increasing value of the member's stock which is also pledged. If any amounts are paid in to reduce the loan, adjustments are made in the interest payment. In about 142 months the stockholder will have paid in as dues \$2840 and his share of the earnings will be about \$1160. The stock is then said to mature. If the loan of \$4000 still exists it is satisfied by canceling the stock.

If the association is forced to foreclose on a number of mortgages, losses arising therefrom may be so heavy that stockholders are forced to pay monthly dues, interest, etc., for a much longer period than 142 months. Under these conditions investments in building and loan shares become less attractive.

Premiums.—Next in importance from the standpoint of income are premiums. A premium is an amount paid to a building society by a borrowing shareholder in order to obtain a loan. Needless to say, the premium arises only in cases where the demand for money exceeds the available supply. The premium is an additional amount, over and above interest, which the borrower agrees to pay. It may be a fixed sum or may vary as a result of competitive bidding. On first mortgages, a premium of 15 cents per share often has been charged, and on second mortgages, the charge sometimes has reached 30 cents per share. In some states the premium cannot exceed 2 per cent of the loan or 33⅓ cents per share. The premium may be deducted from the face of the loan and the balance turned over to the borrower, but more often it is paid in monthly instalments until the loan is satisfied. In some associations, interest is charged monthly on the unpaid balance of the premium.

Fines.—Another source of income is fines. A fine is a penalty imposed on a delinquent shareholder or borrower. Its purpose is to encourage promptness in the payment of dues and interest. In this it has been unusually successful.

The amount of the fine may vary. It is usually small enough to prevent undue hardship for the delinquent, yet sufficiently large to be effective. In many associations the fines are at the rate of one cent per share per month. As a rule they are levied against the total arrearages of a member. However, if fines are allowed to accumulate for an indefinite length of time, the amounts paid in as principal would disappear because of charges for fines. Hence many associations do not charge fines after about 6 months, preferring instead to cancel the shareholder's stock and to return to him the dues paid in, less any stock loans and other arrearages. If the shareholder has secured a mortgage loan from the association and becomes excessively delinquent in his payments, foreclosure proceedings are usually instituted. In this manner the accumulation of heavy fine penalties is avoided. A feature of the Federal Savings and Loan Asso-

ciation is the bonus, the reverse of the fine. Instead of fining for failure to pay, a bonus is credited to the shareholder's account at maturity provided all payments have been made in accordance with association regulations. The assessment of fines is not prohibited by law unless the fine is unreasonable in amount. It is eminently fair that a penalty should be exacted for carelessness or forgetfulness upon the part of the delinquent stockholder.

Miscellaneous Income.—While the above items represent the main sources of income, it is not uncommon for an association to have a moderate return from rentals of real estate which it owns by reason of foreclosure proceedings, and from interest on its time deposits.

Expenses

It is now necessary to consider the expenses of building and loan associations. The main items of expense include office rental, the salaries of the secretary and treasurer, advertising and printing, postage, bonding of officers, and interest on borrowed money. Associations which find it necessary to foreclose on mortgages held by them may have expenses in connection with foreclosure proceedings and additional expenses in connection with the property after it has been attached.

Another item sometimes regarded as expense is interest or profits paid to stockholders who withdraw from the association before their shares have matured. It is a question whether this is really an expense or merely represents the paying out of capital, since the shareholders participate in the profits on the basis of the number of shares held and the age of the shares.

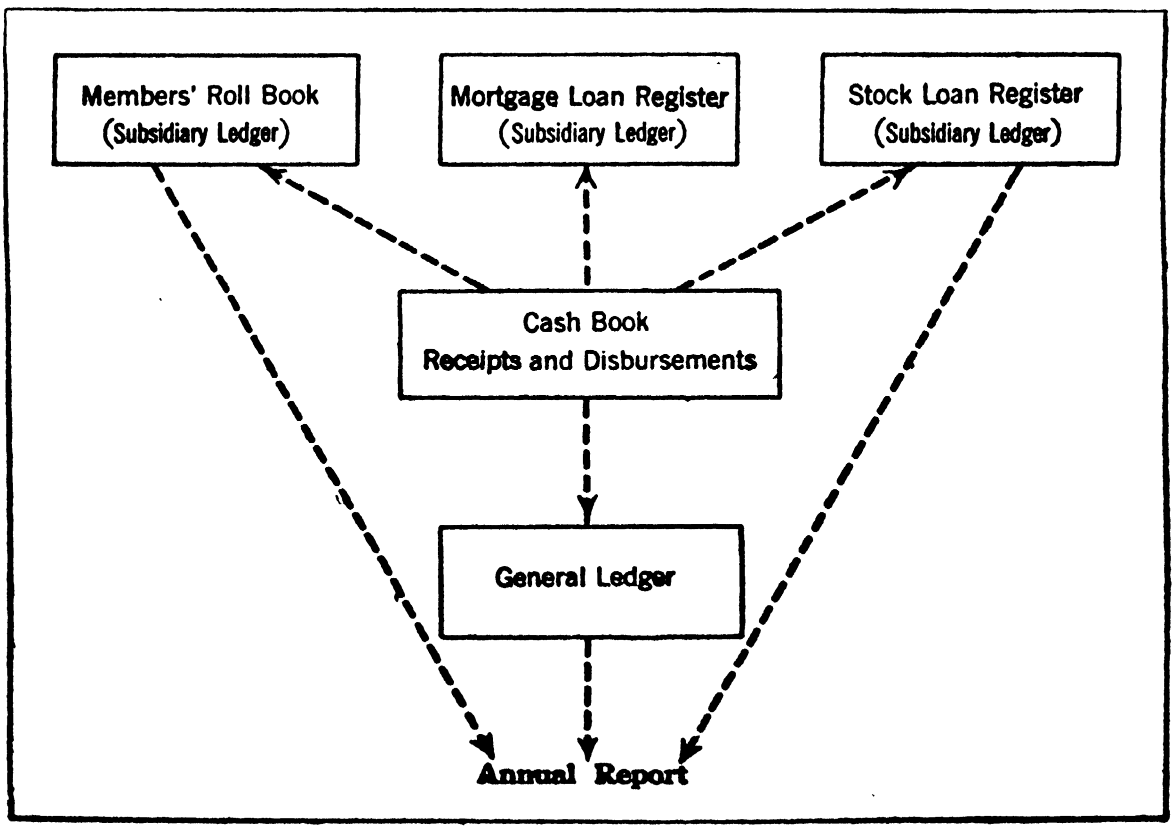
The amount of interest or profits paid to withdrawing members is usually less than the profits which have been apportioned to their shares on the books of the association. This difference is sometimes called forfeited profits and is regarded as an item of income. Forfeited profits in reality represent capital forfeited and are available as such for redistribution to the remaining shareholders.

CHAPTER V

ACCOUNTING OF A BUILDING AND LOAN ASSOCIATION

THE accounting of a building and loan association presents two important problems. The records should provide, in the first place, for an adequate system of recording all cash receipts and payments, and, in the second place, for the proper recording of each member's payments so that the book value of each share of stock outstanding in each series may be determined. The computing of this value, however, depends upon the distribution of profits.

Reference should be made at this point to Form I illustrating the accounting plan of a building and loan association.



FORM I.—Chart of Accounting Plan.

Cash Book

The cash book is the principal book of a building and loan association. All other books are subordinate to it. It is columnar in form, and some of the columns make possible the use of controlling accounts. In this book are entered all receipts from stockholders, such as dues, interest, premiums, repaid mortgage and stock loans, etc., and in it a record is kept of all disbursements authorized by the board of directors. The secretaries of many associations use the cash books as the only books of original entry. Transactions which would ordinarily be recorded in journal entry form are recorded through the cash books. The cash records thus become combination cash books and journals under this method of recording. It is essential that the receipts and disbursements shown by the cash book agree with the treasurer's record. Reference to Form II should be made for illustrative cash book rulings and entries.

It will be noted that collections are summarized and analyzed in the cash book. Receipts, other than those taken in at the time of a meeting, are entered separately. All checks drawn are recorded separately. The balance of cash on hand should agree at all times with the treasurer's report of cash in bank. The footings of the columns, some of which may have to be analyzed, should be posted to a ledger monthly. A very large proportion of building and loan associations, however, dispense with the use of a ledger and may even dispense with the use of the general journal. The omission of these books from the books of a building and loan association may be partly attributed to the fact that many association secretaries of the past have been unfamiliar with the principles of double-entry bookkeeping. The annual report submitted to directors and shareholders could be easily prepared by starting with the report of the previous year and making the necessary increases or decreases in the accounts from the current information appearing in the cash book. The dissemination of accounting knowledge and the gradual displacement of older secretaries by younger men

are bringing about gradual improvements in methods of recording building and loan association transactions. The general ledger is beginning to occupy an important place in the accounting system.

Journal

As stated above, transactions not involving cash are often recorded in the cash books. The recording of equal amounts on both sides of the cash book, although different accounts are charged or credited, does not affect the balance of cash. It does, however, inflate cash receipts and disbursements by the same amounts. To avoid this many secretaries insert a "contra" column on each side of the cash book and make use of these columns rather than the cash columns in recording journal entries. The "contra" columns are always in balance and their use makes it possible to separate journal entries from bona-fide cash transactions. A better plan, however, is to use the ordinary two-column journal for recording transactions which would ordinarily be journalized.

The books and records of Federal Savings and Loan Associations give evidence of greater standardization in accounting methods. This is partly attributable to the fact that these associations have been but recently organized, and are subject to federal supervision. The bookkeeping records of state-chartered associations are less elaborate but generally adequate for the needs of directors and officers.

Roll Book or Members' Register

When dues and other items are paid by stockholders, entries are made in the Roll Book to the credit of the respective members. This roll book exhibits month by month the amount due from each stockholder. Unpaid balances of any month are carried forward into the record of the following month.

By reference to the roll book of the X Y Z Building and Loan Association, Form III, the status of shares in the sixth series may be noted. The amounts due from each

X Y Z BUILDING AND LOAN ASSOCIATION

Cash Receipts

Date 19..		Name	Shares	Book No.	Dues	Entrance Fees	Interest	Premiums	Fines	Borrowed Money	Mortgage Loans Repaid	Stock Loans Repaid	Miscellaneous	Total Receipts	Remarks—Miscellaneous Items
July	10	Collections			2720 00		322 61	26 20	1 02					3069 83	
July	15	Rents											40 00	40 00	Rental of Property 1234 Eustace St.
Aug.	14	Collections			2863 00		317 14	24 00	1 17					3205 31	
Aug.	14	S. Johnson		741								200 00		200 00	
Aug.	14	Front St. Title & Trust Co.								6500 00				6500 00	
Sept.	11	Collections			2742 00		326 18	21 89	1 77					3091 84	

FORM II—CASH RECEIPTS

X Y Z Building and Loan Association

Cash Disbursements

Date 19..		Name	Shares	Book No.	Mortgage Loans	Stock Loans	Borrowed Money	Withdrawal Dues	Withdrawal Interest	Interest Borrowed Money	Expenses	Miscellaneous	Total Payments	Remarks—Miscellaneous and Expenses
July	10	A. Farr		822	3200 00								3200 00	
July	10	B. Goldberg		963		150 00							150 00	
July	10	Brown Printing Co.									21 50		21 50	Printing Expense
Aug.	14	S. Lowes									50 00		50 00	Secretary—salary for quarter ended
Aug.	14	J. Larsen	5	475				300 00	27 18				327 18	
Sept.	11	Juniper Bldg. Co.									14 00		14 00	Rent for office space for 3 months
Sept.	11	D. Mason		561	1600 00								1600 00	

Form II—CASH DISBURSEMENTS

stockholder are extended by the secretary in the various debit columns of the roll book. These entries are usually made prior to the monthly date for the collection of dues in order to facilitate the work of the officers. As payments are made the stockholders are given credit in the credit columns. Then the credit columns for all series are added and the total amount is transferred to the cash book. The receipts shown in the cash book, Form II, for July, totaled \$3069.83. This represents the totals of the various columns, dues, interest, premiums, and fines, in the Roll Book for all series. For example, in Form III, the total, \$264, of Dues Cr. column of Series No. 6 sheet, is added to the corresponding total of the Dues Cr. column of each of the other Series for the month of July to obtain the total, \$2720, shown in Form II as the total collections for Dues in July. Similarly the \$21 interest credit for July in Form III is added to interest credits from other series in July to obtain the total interest collections, \$322.61, shown on the first line of Form II. The Members' Roll Book acts as a guide and check for some of the entries made in the cash book.

Mortgage Loan and Stock Loan Registers

The members' roll book is used for the purpose of recording the detail of collections from members. The Mortgage Loan and Stock Loan Registers (Form IV and Form V) are used as a record of payments by the association in the form of mortgage or stock loans. These two records show at all times the individual and aggregate amounts of all loans which are made upon authority of the board of directors. These books contain the detail of the mortgage loans and stock loans made. The Mortgage Loan Register, for instance, contains the name of the borrower, his book number, the amount of the loan, the sum repaid, a description of the property mortgaged, the amount of prior encumbrances, the building and loan committee valuation of the property mortgaged, payments of taxes and water rents, if any, for the last year, etc.

MEMBERS'

Series No. 6 X Y Z BUILDING AND

Book No.	Name	Shares	Loans	Miscellaneous	Month—July								
					Dues		Interest		Premiums		Fines		Total Paid
					Dr.	Cr.	Dr.	Cr.	Dr.	Cr.	Dr.	Cr.	
600	J. Allen	15			15	15							15
601	R. Wagner	5			5	5							5
602	M. Clark	7	1400	Premium 30¢ per sh. per mo.	7	7	7	7	2.10	2.10			16.10
603	D. Brown	22			22	22							22
604	C. F. Smith	10			10	10							10
605	R. Adams	10			10	10							10
606	W. Hensell	15			15	15							15
607	V. Donovan	5	1000	Premium 15¢ per sh. per mo.	5	5	5	5	.75	.75			10.75
608	G. Primer	2			2								
609	F. Frank	25			25	50							50
610	H. Williams	10	1800	Premium 20¢ per sh. per mo.	10	10	9	9	1.80	1.80			20.80
611	S. McNulty	30			30	30							30
612	E. Earl	50			50	50							50
613	M. Singer	15			15	15							15
614	P. Wendell	10			10								
615	S. Clarkson	20			20	20							20
	Total	251			251	264	21	21	4.65	4.65			289.65

FORM

MEMBERS'

ROLL BOOK

Loan Association

Month—August									Month—September									
Dues		Interest		Premiums		Fines		Total Paid	Dues		Interest		Premiums		Fines		Total Paid
Dr.	Cr.	Dr.	Cr.	Dr.	Cr.	Dr.	Cr.		Dr.	Cr.	Dr.	Cr.	Dr.	Cr.	Dr.	Cr.	
15									30	30					.30	.30	30.30
5	5							5	5	5							5
7	7	7	7	2.10	2.10			16.10	7	7	7	7	2.10	2.10			16.10
22	22							22	22	22							22
10	10							10	10	10							10
10	10							10	10	10							10
15	15							15	15	15							15
5	5	5	5	.75	.75			10.75	5	5	5	5	.75	.75			10.75
4						.04			6	6					.12	.12	6.12
									25	25							25.
10	10	9	9	1.80	1.80			20.80	10	10	9	9	1.80	1.80			20.80
30	30							30	30	30							30
50	50							50	50	50							50
15	15							15	15	15							15
20	20					.20	.20	20.20	10	10							10
20	20							20	20	20							20
238	219	21	21	4.65	4.65	.24	.20	244.85	270	270	21	21	4.65	4.65	.42	.42	296.07

III

ROLL BOOK

MORTGAGE LOAN REGISTER

Date	Name	Book No.	Amount	Re-paid	Description of Property			Tax and Water Rent Receipts Produced	Fire Insurance Requirements
					Location	Prior Encumbrances	Committee Valuation		
19— June 2	Harry S. Baker	127	$3000		4782 Sansom St. Phila., Pa.	First M'tge., Girard Trust Co. $4,000.00	$11,000	For 19—	$3000.00
June 2	Arthur Jones	96	6000		2617 Market St., Phila., Pa.	First M'tge., Albert Hill, $10,000.00	20,000	For 19—	$6000.00
Sept. 5	Robert Levering	212	2000	$300	2762 N. Franklin St., Phila., Pa.	None	4,000	For 19—	$2000.00
	Total								

FORM IV

MORTGAGE LOAN REGISTER

STOCK LOAN REGISTER								
DATE		NAME OF SHAREHOLDER	BOOK NO.	SERIES NO.	SHARES ASSIGNED	AMOUNT OF LOAN	AMOUNT REPAID	BALANCE
Month	Day							
19— Nov.	16	S. Larkin	315	3	7	400	100	300
Dec.	15	Lewis Jones	717	7	15	500		
Feb.	18	Mabel Clark	117	1	10	200		
"	18	F. C. Wills	652	6	10	600		
		TOTAL						

FORM V
STOCK LOAN REGISTER

Real Estate Ledger

An Investment Account and an Income and Expense Account should be opened for each property owned by the association.

The Investment Account (Form VI) reflects the cost of the property to the association. This cost includes the amount of the mortgage loan, less the value of the assigned stock, plus arrearages of interest, premiums, and fines, plus any advances that may have been made for fire insurance, taxes, interest on prior liens, etc. To this amount should be added the cost of foreclosure, together with the amount of unpaid back taxes and first mortgage interest that the association has to pay when it takes over the property.

Usually expenditures for immediate repairs necessary to place the property in a rentable condition are also capitalized.

Real Estate Investment

Amount—Prior
Encumbrance $2000

1234 Eustace Street, Philadelphia

19	..			19	..		
May	1	Mortgage loan	$1,000.00	May	1	Dues, 5 shares	$250.00
"		Delinquent dues	50.00	"		Interest, 5 shares	20.41
"		" interest	50.00				
"		" premium	10.00				
"		" fines	5.00				
"		Advances	75.00				
"		Costs and expenses	100.00				
"		Accrued taxes	20.00				
"		Accrued 1st mtge. interest	60.00				

Real Estate Income and Expense

1234 Eustace Street, Philadelphia

19	..			19	..		
Nov.	1	Taxes	$20.00	July	15	Rent	$40.00
		Interest, 1st mtge.	60.00				
Nov.	15	Repairs	82.00				

Form VI

REAL ESTATE LEDGER ACCOUNT

As soon as the total original cost has been ascertained and entered on the books, any excess investment over and above the present market value of the property should be written off immediately.

Permanent improvements and payments on account of the principal of prior liens should be charged to the Investment Account.

All income from the property and all expenses after title has been taken by the association are entered in the

Income and Expense Account for the particular property and are not capitalized.

Progress of Shares toward Maturity

At regular intervals, generally yearly, the secretary prepares a report to be submitted to the stockholders. This report should contain a balance sheet of the association supported by schedules of the principal assets and liabilities, a copy of the treasurer's report or condensed statement of cash receipts and disbursements, a profit and loss statement, and a stock statement, showing the progress of the shares toward their maturity value. The stock statement sets forth the dues paid in per share for each series, and the division of the profits among those entitled to share in the earnings. By a comparison of the stock statements from year to year, the progress which a share in any given series is making toward its maturity value is clearly indicated. Often the stock statement shows the withdrawal value per share in addition to the book value. As the withdrawal value is usually less than the book value, many stockholders hesitate to withdraw from the association and thereby sacrifice a portion of their investment.

Information for Annual Report

The annual report (Form VII) of the association is prepared from the books of original entry and other sources when no ledger is in use. The information for this report under such conditions is obtained from the cash book, which is columnar in form, the loan registers, the members' roll book, and the annual report of the preceding year. The statement of cash receipts and disbursements is obtained directly from an analysis of the cash book. Some of the assets and liabilities are determined by adding to and/or deducting from the assets and liabilities at the close of the preceding year, any changes which have taken place during

the course of the current year. Thus, the amount due on mortgage loans is secured by adding to the mortgage loan balance of the preceding year the total of cash paid for new mortgages as shown by the cash disbursements and deducting the mortgages repaid appearing in the cash receipts book. Proof of this balance due on mortgage loans can be obtained by adding the mortgage loan balances as shown in the mortgage loan register. The balance due on stock loans may be determined in the same way. The delinquent amounts due from shareholders are obtained from the members' roll book, the analysis of the accounts of the shareholders indicating the arrearages for dues, interest, premiums, and fines. Advance payments also are secured from the members' roll book. Dues liability on all active shares will be shown on the stock statement and can be proved by building up a skeleton ledger account for dues as follows:

PROOF OF DUES LIABILITY

Dues in arrears last year's report................	$2,225.00	Dues liability last year's report................	$49,298.00
Dues paid on withdrawn shares during year as per cash book............	29,600.00	Dues in advance last year's report................	212.00
Dues paid in advance as per members' roll book.	175.00	Dues received during year as per cash book.......	49,657.00
		Dues in arrears as per members' roll book.........	1,947.00
	$32,000.00		
Balance...............	69,114.00		
	$101,114.00		$101,114.00

The dues liability on shares outstanding amounts to $69,114 according to the above proof. This should be in agreement with the total as shown on the stock statement. The difference between the assets and the liabilities is net profit, which is supported by the profit and loss statement, and is distributed to the series in preparing the stock statement, usually in accordance with one of the plans to be explained. The preparation of the annual report may be

greatly simplified by the use of general ledger control accounts. The main control accounts are dues, mortgage loans, stock loans, borrowed money, and real estate.

SECURITY BUILDING AND LOAN ASSOCIATION

Third Annual Report

Year Ended May 19, 1933

Treasurer's Report

Receipts		*Disbursements*	
Cash balance, May 15, 1932	$363.75	Mortgage loans made.....	$28,400.00
Dues....................	49,657.00	Stock loans..............	2,200.00
Interest.................	3,361.50	Withdrawal dues.........	29,600.00
Premiums...............	547.00	Withdrawal—interest.....	421.63
Fines....................	26.12	Salaries of officers........	500.00
Borrowed money.........	7,000.00	Other expenses...........	462.15
Mortgage loans repaid....	1,800.00	Borrowed money repaid...	8,500.00
Real estate..............	8,200.00	Cash balance May 19, 1933.	871.59
	$70,955.37		$70,955.37

Balance Sheet

Assets		*Liabilities*	
Mortgage loans..........	$60,000.00	Dues liability............	$69,114.00
Stock loans..............	4,100.00	Dues in advance.........	175.00
Dues in arrears..........	1,947.00	Borrowed money.........	2,000.00
Interest in arrears........	298.00	Reserves................	500.00
Premiums in arrears......	50.15	Earnings distributed......	4,677.74
Real estate owned........	9,200.00		
Cash on hand............	871.59		
	$76,466.74		$76,466.74

Form VII

ANNUAL REPORT

STATEMENT OF PROFIT AND LOSS

Year Ended May 19, 1933

Balance of Profits, last report			$2479.34
Income			
Interest received	$3361.50		
Less interest in arrears, last year	169.47		
	$3192.03		
Add interest in arrears, this year	298.00	$3490.03	
Premium received	$547.00		
Less premium in arrears, last year	31.12		
	$515.88		
Add premiums in arrears, this year	50.15	566.03	
Fines		26.12	4082.18
Total			$6561.52
Expenses			
Salaries	$500.00		
Other expenses	462.15		
Withdrawal interest	421.63		1383.78
Balance of profits			$5177.74
Apportionment of Profits			
To reserve	$500.00		
To earnings due shareholders	4677.74		$5177.74

STOCK STATEMENT

Series	Shares	Paid per Share	Total Dues	Profits per Series	Profits per Share	Book Value per Series	Book Value per Share
1	600	$36.00	$21,600.00	$1998.00	$3.33	$23,598.00	$39.33
2	525	30.00	15,750.00	1220.63	2.32	16,970.63	32.32
3	470	24.00	11,280.00	705.00	1.50	11,985.00	25.50
4	499	18.00	8,982.00	426.65	.85	9,408.65	18 85
5	701	12.00	8,412.00	273.39	.39	8,685.39	12.39
6	515	6.00	3,090.00	54.07	.10	3,144.07	6.10
	3310		$69,114.00	$4677.74		$73,791.74	

FORM VII.—ANNUAL REPORT (*Continued*)

The Distribution of Profits

Several methods of distributing profits are employed by building and loan associations. Some societies distribute only the profits earned during a given period; others distribute at the end of each given period all profits which belong to the unmatured shares, irrespective of previous distributions. For instance, during the three years of its existence an association may have made $4500 of which $2200 represents the profits of the third year. Under the latter method the previous distributions of profits are disregarded and the entire $4500 is distributed.

In an association organized under the terminating plan, the distribution of profits is exceedingly simple. Inasmuch as all stockholders have paid the same amounts in dues, the shares issued constitute only one series. The profits per share are determined by dividing the total profits by the number of shares outstanding. Any stockholder can determine his share of the profits by multiplying the number of shares he holds by the profits per share.

In the serial and permanent types, the problem of the distribution of profits is quite complicated. The total profits cannot be divided equally among all series since series have come into existence at different dates. This time element is exceedingly important, for greater profits are realized for money loaned out for a long period of time than for a short period of time. Another element affecting the distribution of profits is the varying number of shares in each series. These difficulties can be overcome by reducing the amounts paid in for each series to a common basis.

Building associations organized under Federal Savings and Loan Laws apportion dividends semi-annually, the dividends being based upon the amounts paid in by shareholders on investment shares owned by them. Dividends are not a distribution of total profits but merely an allocation of profits to saving shareholders, the rate of return being nominal. The procedure is somewhat similar to interest calculations

on savings accounts. The directors of an association may, by resolution, fix a date for calculating the interest or dividends. Thus funds invested before the tenth of the month may earn dividends as if invested as of the first of the month. Funds received after the date fixed earn dividends from the first of the following month. Many of these associations follow the practice of apportioning undivided profits under the partnership plan to be explained below. The distribution of profits when made in this manner by Federal Savings and Loan Associations is similar to that of other building and loan associations.

Methods of Distributing Profits

1. *Partnership Method.*—In distributing profits to the various series the relationship of one series to another must be thoroughly analyzed. How many months have the different series been in existence? What is the total investment represented by each series? What sum of money invested for a period of one month will have the same earning capacity as this total investment? What is the ratio which this total monthly investment of each series bears to the total monthly investment of all series?

To illustrate the principles giving rise to the foregoing questions, assume that the Alpha Building and Loan Association issues stock every six months. At the end of two years the secretary's roll book shows the following:

Series	Number of Shares Issued
1	200
2	300
3	100
4	400

Since series have been issued every six months and dues have been payable monthly at the rate of $1 per share, it follows that Series No. 1 has been in existence 24 months; Series No. 2, 18 months; Series No. 3, 12 months; and Series No. 4,

6 months. The amount of dues paid per share in each series is $24, $18, $12, and $6 respectively. The amount invested in each series is obtained by multiplying the total amount paid in per share by the number of shares in the series. Hence the total investment in each series may be set forth as follows:

Series No. 1	200 × $24 = $4800.00
Series No. 2	300 × 18 = 5400.00
Series No. 3	100 × 12 = 1200.00
Series No. 4	400 × 6 = 2400.00

The answer to the third question is more difficult, and upon this answer hinges the solution to the distribution of profits by the partnership plan. Our answer can be obtained by comparing a building and loan society with a savings institution with respect to interest credits. Suppose Mr. A decides to deposit $100 on the 1st day of each month for the last 6 months of 19—. If interest is credited to his account at the rate of 4 per cent per annum, what will be the amount of interest to his credit on December 31? This can be determined by the following process:

Interest on	$100 balance	July	1st to August 1st	@ 4%	$0.33
Interest on	200 balance	August	1st to September 1st	@ 4%	0.67
Interest on	300 balance	September	1st to October 1st	@ 4%	1.00
Interest on	400 balance	October	1st to November 1st	@ 4%	1.33
Interest on	500 balance	November	1st to December 1st	@ 4%	1.67
Interest on	600 balance	December	1st to December 31st	@ 4%	2.00
Total interest to be credited on December 31st.............					$7.00

If Mr. A's main purpose had been to earn $7 on his deposit, he could have followed several other courses. One deposit of $100 could have been made for the number of months corresponding to the total number of months that each separate $100 remained on deposit. The sum of these months is 21, therefore it would have been necessary to deposit $100 for 21 months. If it takes 21 months for $100 to earn $7 at 4 per cent simple interest, then any greater

sum deposited would earn \$7 in a shorter period of time. If the original deposit were \$600 instead of \$100, then the time it would take to earn \$7 interest would be exactly one-sixth of 21 months, or 3½ months. If the deposit were increased to \$2100 then the time required to earn \$7 would be reduced to one month. It can be seen from the foregoing that \$100 invested at the beginning of each month for 6 months will have the same earning capacity as \$600 invested for 3½ months or \$2100 invested for one month. The method of distribution of profits by the partnership method is indicated by the above. The earning power of each series is reduced to a common basis, i.e., the total investment for a period of one month. This is found by multiplying the total dues paid in for each series by the average number of months each series has been in existence. Thus a series which has run 6 months has an average existence of 3½ months, the result obtained by taking 6 plus 5 plus 4 plus 3 plus 2 plus 1 and dividing by 6, or by adding 1 to the number of months and dividing by 2. For any series in which payments are made at the beginning of the month the average time may be found by this means. Thus a series which has run for 18 months has an average term of 9½ months; one running for 25 months has an average term of 13 months. By applying the foregoing to the Alpha Building and Loan Association, the equivalent earning power can be determined:

Series	Shares		Dues per Share		Total Dues		Average Time	Equivalent Earning Power
1	200	×	\$24	=	\$4800	×	12½	\$60,000
2	300	×	18	=	5400	×	9½	51,300
3	100	×	12	=	1200	×	6½	7,800
4	400	×	6	=	2400	×	3½	8,400
Total								\$127,500

If the net profits were \$850 for the two years, then the proportion of the net profits belonging to each series and to each share would be found in this manner:

Series					Earnings per Series	or	Earnings per Share	Dues Paid in per Share	Book Value per Share
1	$\frac{60,000}{127,500}$	×	$850	=	$400	or	$2.00	$24.00	$26.00
2	$\frac{51,300}{127,500}$	×	850	=	342	or	1.14	18.00	19.14
3	$\frac{7,800}{127,500}$	×	850	=	52	or	.52	12.00	12.52
4	$\frac{8,400}{127,500}$	×	850	=	56	or	.14	6.00	6.14
					$850				

Thus, on a partnership basis, earnings are distributed according to the amount of the investment and the length of time each series has been in existence. Under this plan the total surplus, which is shown by the asset and liability statement, is distributed yearly.

2. *Rice's Method.*—A variation of the partnership method which has been followed with a great deal of success by building and loan associations is known as Rice's plan. According to this plan, the average time each series has been in existence is found by dividing the total number of months by 2. The earning power of each series is found by multiplying the number of shares in the series by the dues paid in per share, and then multiplying the resultant product by one-half the number of months the series has run. Multiplying the number of shares by the dues paid per share gives the dues capital of the series. Let us apply this plan to the Alpha Building and Loan Association.

Series	Number of Shares		Dues per Share		Half Time		Equivalent Earning Power
1	200	×	$24	×	12	=	$57,600
2	300	×	18	×	9	=	48,600
3	100	×	12	×	6	=	7,200
4	400	×	6	×	3	=	7,200
Total							$120,600

Since the factor 6 is common to the Dues per Share column and 3 to the Half Time column, these may be accordingly reduced:

Series							Equivalent Earning Power
1	200	×	4	×	4	=	$3,200
2	300	×	3	×	3	=	2,700
3	100	×	2	×	2	=	400
4	400	×	1	×	1	=	400
							$6,700

Expressed in its simplest form, the earning power for any series, where all series are issued at regular intervals, is obtained by multiplying the number of shares by the square of the number denoting the intervals which have elapsed since the series began; i.e., the fourth-series shares would be multiplied by 1^2; the third, by 2^2; the second, by 3^2, etc.

On the basis of $850 earned for two years, the profits per series and per share would be found by the following calculations:

Series				Earnings per Series		Earnings per Share
1	$\frac{3200}{6700}$	× $850	=	$405.97	or	$2.02 plus per share
2	$\frac{2700}{6700}$	× 850	=	342.53	or	1.14 plus per share
3	$\frac{400}{6700}$	× 850	=	50.75	or	.50 plus per share
4	$\frac{400}{6700}$	× 850	=	50.75	or	.12 plus per share
				$850.00		

Disadvantages.—The partnership and the Rice plans of distributing profits are open to certain criticisms which are not chargeable against the third and fourth methods. These criticisms will be discussed briefly. In the first place the methods of distributing profits do not correspond with actual conditions, for the profits of an association are dis-

tributed each year by being credited to the book value of the various shares outstanding. The methods are based on the assumption that the profits have been placed in a common pool and then redistributed each successive year. This process is continued each year. In the second instance such plans ignore the rights of the older issues and may result in a new series of stock, securing advantages at their expense. Suppose in the fourth year the association, through unfortunate investments, has not earned a profit, but the total profit for the first three years equaled $3000. The fourth series of stock would have a share in the $3000 of profits earned before it came into existence. On the other hand, these plans might have worked to the disadvantage of the fourth series. If the profits of any one year are unusually large, owing to a very active demand for money or some other reason, the earlier series have, by virtue of their much greater average period of investment, a distinct advantage over the latter series in the distribution of the profit.

The Invested Capital and the Dexter methods avoid a large number of these disadvantages by not only placing each year on a separate basis but by eliminating past profits in the distribution of current earnings. The method of computation under these plans is quite similar to that which we have already studied, the system of equated values being used.

3. *Invested Capital Method.*—To the book value of all shares in existence at the beginning of the year add one-half of the dues payable during the year on all shares which remain outstanding at the end of the year. Divide the sum into the profits earned during the year to find the rate per cent of profit. Next multiply the book value per share at the beginning of the year plus one-half of the amount of dues paid in, by the rate per cent of profit in order to find the profit per share. Multiply the profit per share by the number of shares outstanding to obtain the profit per series. As an illustration, take an association

which showed at the end of its first year the following valuations:

Series No. 1—200 shares outstanding
$12.60 Book Value per share

Series No. 2—300 shares outstanding
$6.16 Book Value per share

Series No. 3 and No. 4 were issued during the second year with 100 and 200 shares respectively. At the end of the second year, profits were found to be $525 for the year.

Following the rules listed above for distributing the profits:

Series No. 1—200×$12.60 =	$2,520.00	Book Value Beginning of Year
Series No. 2—300× 6.16 =	1,848.00	Book Value Beginning of Year
	$4,368.00	Book Value Beginning of Year
Series No. 1—200×12 = $2,400		
Series No. 2—300×12 = 3,600		
Series No. 3—100×12 = 1,200		
Series No. 4—200× 6 = 1,200		
$8,400	$4,200.00	One half dues paid in during the year.
	$8,568.00	Total Dividend Sharing Capital.

$525.00÷8568 = .061274 Rate Per Cent of Profit.

Series No. 1—	($12.60 plus $6.00)×.061274 =	$1.13	Profit per share for year
Series No. 2—	(6.16 plus 6.00)×.061274 =	.74	Profit per share for year
Series No. 3—	6.00 ×.061274 =	.36	Profit per share for year
Series No. 4—	3.00 ×.061274 =	.18	Profit per share for year

Value per share—end of second year

Series No. 1—	$12.60 plus	$12.00 plus	$1.13 =	$25.73
Series No. 2—	6.16 plus	12.00 plus	.74 =	18.90
Series No. 3—		12.00 plus	.36 =	12.36
Series No. 4—		6.00 plus	.18 =	6.18

It will be noted that in the distribution of profits by the invested capital method, the net profits of the year only are distributed. The profits of prior years, which have been distributed, are not redistributed. In this respect the method differs from the partnership method and Rice's method.

4. *Dexter Method.*—Let us assume that there are four series of stock with book values and numbers of shares as follows: Series 1, book value \$38.85, number of shares 500; Series 2, book value \$25.28, number of shares 600; Series 3, book value \$12.33, number of shares 400, and Series 4, number of shares 500. The profit and loss statement reveals a profit of \$3000 for the fourth year. We would first ascertain the equated value of the total book value of various series issued and add to this the equated value of the actual dues paid in on each series for the year just ending. This would give:

Series No. 1—	\$38.85×500×12 =	\$233,100	
	12 ×500× 6½ =	39,000	\$272,100 equated value
Series No. 2—	25.28×600×12 =	\$182,016	
	12 ×600× 6½ =	46,800	228,816
Series No. 3—	12.33×400×12 =	59,184	
	12 ×400× 6½ =	31,200	90,384
Series No. 4—	12 ×500× 6½ =		39,000
			\$630,300

There are several other methods, more technical in character, of arriving at the above result. However, this is sufficient for our purpose. Now it is easily seen that the proportion of the \$3000 profits of the fourth year which belongs to each series is the relation which their equated values bear to the total equated value of all of the series in the association. The results, therefore, would be as follows:

$\frac{272,100}{630,300}$ of \$3,000 = \$1,295.10 to Series No. 1, or \$2.59 plus per share

$\frac{228,816}{630,300}$ of 3,000 = 1,089.08 to Series No. 2, or 1.81 plus per share

$\frac{90,384}{630,300}$ of 3,000 = 430.20 to Series No. 3, or 1.08 plus per share

$\frac{39,000}{630,300}$ of 3,000 = 185.62 to Series No. 4, or 0.37 plus per share

Total \$3,000.00

Adding the earnings belonging to each share of each series, and the dues paid in during the year to the book values at the end of the preceding year, we find that the present book value of each share in each series is:

Series No. 1—	$38.85 plus	$12 plus	$2.59 =	$53.44
Series No. 2—	25.28 plus	12 plus	1.81 =	39.09
Series No. 3—	12.33 plus	12 plus	1.08 =	25.41
Series No. 4—		12 plus	0.37 =	12.37

The foregoing method of computation has been materially simplified by the casting out of common factors in the process of multiplication. For example, each share of the first series at the beginning of the year has a book value of $38.85. This amount will work throughout the 12 months of the fourth year. The $12.00 per share paid in for the current year will work for an average of 6½ months. This is the same as considering $38.85 as working for one year plus $6.50 working for the same time, or a total of $45.35 working throughout the entire fourth year for each share of the first series. On 500 shares outstanding, the equated dues on an annual basis, will be $22,675.00.

To summarize the entire problem we can present the results as follows:

Series No. 1—	38.85 plus 6.50 =	45.35×500 =	22,675
Series No. 2—	25.28 plus 6.50 =	31.78×600 =	19,068
Series No. 3—	12.33 plus 6.50 =	18.83×400 =	7,532
Series No. 4—	6.50 =	6.50×500 =	3,250
			52,525

Profits of $3000 for the fourth year divided by $52,525 equated dues for all series for the year equals 0.057115659.

$22,675×.057115659 =	$1,295.10	Profit for Series No. 1
19,068×.057115659 =	1,089.08	Profit for Series No. 2
7,532×.057115659 =	430.20	Profit for Series No. 3
3,250×.057115659 =	185.62	Profit for Series No. 4
	$3,000.00	

QUESTIONS AND PROBLEMS

(a) Questions

1. Name and describe the main types of building and loan associations.

2. Differentiate building and loan associations from other corporations.

3. What is the most common method of stock issue by a building and loan association, and how is it paid for? What value attaches to a share of stock?

4. Explain the making and recording of loans by a building and loan association with regard to:
   - (*a*) Types of loans usually made.
   - (*b*) The security for each type.
   - (*c*) The books and records in which the loans are recorded.
   - (*d*) The information kept in these books and records.

5. Differentiate between the following methods used by a building and loan association in distributing profits:
   - (*a*) Partnership Plan.
   - (*b*) Rice's Plan.
   - (*c*) Dexter's Plan.

6. A building and loan association keeps the following books and records: Cash book, members' roll book, mortgage loan register, and stock loan register. Explain fully the information recorded in each book and how each book aids in the preparation of the annual report.

7. (*a*) What are the sources of income of a building and loan association?

   (*b*) A building and loan association earned $4088.00 from interest on mortgage loans during the year. From what books and records would you obtain your facts to prove this figure?

8. Explain the following terms used in building and loan accounting:
   - (*a*) Stock loans.
   - (*b*) Withdrawal value.
   - (*c*) Delinquent dues.
   - (*d*) Premiums.
   - (*e*) Book value.

9. What are the accounting problems of a building and loan association? Which is the outstanding one?

10. A building and loan association showed the following items, among others, in its annual report: Mortgage loans $83,017.80; dues liability $69,066.00. How would you test the correctness of each of these figures? Indicate from what source you would obtain each item in your proof.

11. You are called upon to install an accounting system for the Beta Building and Loan Association. The association will open new series in April and October of each year. Mortgage and stock loans will be made to members. Dues, interest, etc., are payable each month. The secretary will keep the books and records of the association, and the treasurer will have custody of the cash and securities.

(a) What books and records should the association have? State the purpose of each.

(b) What precautions should be taken to prevent the treasurer from paying out funds for unauthorized purposes?

12. Assume a building and loan association uses only a columnar cash book as a book of original entry. How would adjusting entries be shown?

(b) Problems

1. The Independence Building and Loan Association reported a profit of $525.13 at the close of its first year. The shares outstanding at the end of the first year were as follows:

Series	Shares	Paid per Share
1	961	$12.00
2	475	8.00
3	525	4.00

Distribute profits under the Partnership Plan.

2. The Ideal Building and Loan Association issued the following stock statement at the close of its second year, May 29, 1932:

Series	Shares	Paid per Share	Total Paid	Profit per Series	Book Value per Series	Profit per Share	Book Value per Share
1	1131	$24	$27,144	$2533.44	$29,677.44	$2.24	$26.24
2	243	12	2,916	136.08	3,052.08	0.56	12.56
	1374		$30,060	$2669.52	$32,729.52		

At the end of the third year the roll book showed the following shares outstanding:

Series	Shares	Paid per Share
1	1075	$36.00
2	225	24.00
3	341	12.00

The association allows no profits to any shareholder withdrawing before the end of the third year. The profit and loss statement shows total profits for the three years $5892.63. You have been asked:

(a) To determine the amount of profits forfeited by withdrawing shareholders during the year.

(b) To determine the amount of profit to be distributed during the third year under the Dexter Plan.

(c) To prepare a stock statement as of the close of the third year showing the distribution of profits under the Dexter Plan.

3. The Social Community Building Association submitted the following balance sheet to its stockholders July 1, 1932:

Assets		*Liabilities*	
Mortgage loans	$50,150.00	Instalment stock dues	$56,025.00
Stock loans	6,825.00	Dues in advance	50.00
Cash in bank	532.29	Contingency reserve	1,428.64
Real estate	6,500.00	Earnings due shareholders	7,214.10
Dues in arrears	374.00		
Interest and fines in arrears	336.45		
	$64,717.74		$64,717.74

The treasurer's statement for the fiscal year ending July 1, 1933, is given herewith:

Cash Receipts

Cash balance, July 1, 1932	$532.29
Dues	12,081.00
Interest	3,472.12
Fines	64.72
Real estate sold	6,000.00
Mortgage loans repaid	3,125.00
Stock loans repaid	275.00
	$25,550.13

Cash Disbursements

Dues withdrawn	$4,175.00
Interest allowed on dues withdrawn	371.12
Mortgage loans	18,500.00
Stock loans	425.00
Real estate expenses	462.15
Salaries	300.00
Other expenses	327.49
Cash balance, July 1, 1933	989.37
	$25,550.13

Delinquencies July 1, 1933, as shown by the members' roll book, are: dues, $775.00; interest and fines, $471.63. Dues paid in advance, total $62.00.

All real estate has been sold and the loss thereon is to be charged against the contingency reserve. The contingency reserve is to be increased to $1500.00 and is to appear on the July 1, 1933, balance sheet at that figure.

From the above information, prepare the following statements for the annual report:

(*a*) Balance sheet, July 1, 1933.

(*b*) Profit and loss statement for the year.

4. The members' roll book of the above association reveals the following shares as outstanding:

Series	Shares	Paid per Share
1	363	$60
2	381	48
3	416	36
4	231	24
5	311	12

Prepare stock statement showing distribution of profits by the Partnership Plan.

5. The following trial balance has been taken from the general ledger of the Own-Your-Home Building Association:

Cash	$2,447.77	
Mortgage loans	239,400.00	
Stock loans	8,650.00	
Real estate owned	14,712.00	
Reserve for real estate		$3,000.00
Dues liability—last report		185,415.00
Dues in arrears—last report	1,453.00	
Dues in advance—last report		112.00
Profits distributed—last report		35,961.00
Borrowed money		8,500.00
Dues received		36,412.00
Interest		13,131.31
Premiums		3,045.62
Fines		291.07
Entrance fees		94.50
Real estate rentals		549.00
Real estate expenses	1,369.18	
General expenses	774.14	
Salaries	1,200.00	
Interest on borrowed money	600.00	
Withdrawal dues	5,187.00	
Withdrawal interest	318.41	
Matured stock—dues	7,280.00	
Matured stock—interest	3,120.00	
	$286,511.50	$286,511.50

The members' roll book upon analysis shows arrearages in the following amounts: dues $2263.00; interest $1917.65; premiums $537.10; fines $102.63. Dues in advance amount to $183.00.

Prepare balance sheet and statement of profit and loss.

6. The third annual statement of Boulevard Building and Loan Association issued as of April 2, 1932, showed the following balance sheet:

BALANCE SHEET—APRIL 2, 1932

Assets		*Liabilities*	
Mortgage loans	$47,250.00	Due shareholders	$44,256.00
Stock loans	7,875.00	Borrowed money	7,100.00
Dues delinquent	1,254.50	Advance dues	70.00
Interest and premium delinquent	196.34	Advance interest and premium	13.00
Fines delinquent	31.60	Due on withdrawals [1]	345.46
Cash in bank	849.65	Profits	5,672.63
	$57,457.09		$57,457.09

[1] Amount due shareholders on stock canceled.

The receipts and disbursements for the year ending April 2, 1933, were:

Receipts		*Disbursements*	
Cash balance—last year.	$849.65	Mortgage loans.........	$37,400.00
Dues..................	33,820.50	Stock loans............	4,675.00
Interest and premiums..	4,849.42	Withdrawal dues.......	792.00
Fines..................	184.62	Interest on withdrawals.	17.25
Mortgage loans repaid..	8,000.00	Borrowed money repaid.	30,600.00
Stock loans repaid......	3,300.00	Interest on borrowed money..............	627.01
Entrance fees..........	133.00	Salaries and expenses...	1,407.62
Borrowed money.......	26,100.00	Due on withdrawals [1]...	345.46
		Balance in bank........	1,372.85
	$77,237.19		$77,237.19

Delinquent dues amounted to $964; interest and premiums delinquent $122.36; fines delinquent $38.90. Dues paid in advance totaled $90.00. Interest accrued on borrowed money $15.43.

The roll book of the secretary showed the following shares outstanding on April 2, 1933:

Series	Shares	Series	Shares
1	754	5	550
2	71	6	872½
3	73	7	345
4	33½	8	187

New series are issued every six months.

From the above information prepare the annual report.

[1] Amount due shareholders on stock canceled.

PART II

INSURANCE COMPANY ACCOUNTING

(A) Fire Insurance

CHAPTER VI

FIRE INSURANCE COMPANY PROCEDURE

One of the most serious hazards confronting the business man is that of fire. The capital invested in a business, buildings, machinery and tools, merchandise inventories, and furniture and fixtures may be destroyed at any time by fire, resulting in either a complete or partial loss of capital goods, disruption of business operations, and loss of employment and wages to the workers formerly employed. Business men have endeavored to protect themselves against the possibility of loss arising through fire. As a result of this need for protection from fire and other unpredictable hazards, an enormous business has grown up, the business of insurance. It is now possible for a property owner to protect himself against losses arising because of fire, tornadoes, earthquakes, burglary, etc. Individuals protected against hazards by insurance are reimbursed for losses sustained. Many risks of like character are combined, and the companies insuring them collect from the many to reimburse the unfortunate few.

It is the purpose of this chapter to consider the practices and procedures of fire insurance companies and of the next chapter to discuss the accounting methods and controls.

Definition of Fire Insurance

Fire insurance may be said to be a means whereby the risks incidental to fire are shifted from the individual to the group. On the basis of past experience, insurance companies approximate the fire loss for a given period of time. The cost of the loss can be assessed against the many who desire protection against loss of capital. The assessments levied against the many in the form of premiums can be used to defray the losses incurred.

Protection against Fire Hazard

A person may use all the precautionary measures at his command to protect his property from fire and yet suffer severe fire losses. Although fireproof construction offers splendid protection and although fire extinguishers and automatic sprinkler systems have reduced the fire loss to a marked extent, statistics show that the fire hazard in this country is still tremendous. Therefore, since property may be destroyed by fire, and since it is uncertain which particular structure will be subjected to such loss, it behooves the owner to choose between trusting to luck that his property will not take fire and setting aside a certain amount of money at regular intervals to insure against such a contingency. Protection may be obtained by self-insurance, designed to enable the property owner to carry the risk himself, or by the familiar form of fire insurance, whereby, for a stated payment designated as the premium, the risk of loss is assumed by a group.

The constantly increasing amount of insurance carried by insurance companies shows that self-insurance has distinct drawbacks. The yearly increase in the volume of insurance handled gives rise to reductions from time to time in its cost, which, in turn, have encouraged the further buying of insurance on the part of the public. For a comparatively small premium a very large amount of insurance coverage can be obtained for any period.

Other Benefits of Fire Insurance

The protection offered by fire insurance companies, though of the utmost value, is but one of many advantages. There are many features of insurance which indirectly aid greatly in the conduct of modern business.

The first of these indirect advantages is the reduction of the fire hazard. Insurance companies offer lower rates on properties where the risk is reduced through the application of preventive measures. Consequently, insurance companies have been instrumental in causing property owners to protect themselves, and incidentally the companies as well as the property owners have profited.

A second advantage, which hinges upon the reduction of the fire hazard, is the minimizing of loss caused by the retarding of production. Since fires today are far less likely than formerly, a greater continuity of production, with its attendant preservation of income for employer and employee, is assured.

A third advantage is that fire insurance serves as an additional guarantee for loans made on property of an insurable nature. Through the medium of insurance the lender can be protected against loss in the event of the destruction by fire of property used as the basis for a loan. Without this protection the risk would be greatly increased and the lender would be obliged to charge a higher rate of interest.

A fourth advantage is the stabilizing effect of insurance on prices of commodities. The expenses of a business are absorbed in the selling price of its product. It naturally follows that expenses incurred through fires must be charged in the selling price and therefore borne by the consumer. Any reduction in losses by fire should lessen the cost of production, and therefore lower the selling price. Insurance also steadies prices in that the yearly expense in the form of premiums paid by the owners of property is inconsequential compared with the losses from a serious fire that would have to be borne by owners who carried no insurance.

State Supervision of Insurance Companies

An insurance department with authority to execute the laws of the state governing insurance exists in most states. The head of this department in Pennsylvania is called the Insurance Commissioner. He has power to issue certificates to insurance companies authorizing them to enter into insurance contracts. It is his duty to require every domestic insurance company to keep its books, records, accounts, and vouchers in such manner that he or his authorized representatives may readily verify its annual statements and ascertain whether the company has complied with the provisions of the law. At least once every three years, he or his agents shall examine the books and affairs of each domestic insurance company. He may investigate the affairs of any corporation, doing business within the state, that is in any way associated with any insurance company. He is further required to examine fire-rating bureaus at least once every three years, and in doing so has access to all books and records. He is also compelled to make annually a report showing the condition of companies doing business in the state.

In Pennsylvania, an association of not less than ten persons, citizens of the state, may make application for the incorporation of an insurance company. In the application for a charter must be stated the articles of agreement containing the following information:

1. The name by which the company shall be known.
2. The class of insurance for the transaction of which it is constituted.
3. The plan or principle upon which the business is to be conducted.
4. The place in which it is to be established or located.
5. In the case of a stock company, the amount of its capital.
6. The general objects of the company.
7. The proposed duration of the company.
8. The powers it proposes to have and exercise.

The minimum paid-up capital required of stock fire insurance companies is one hundred thousand dollars. In addition to the paid-up capital stock each company must have a surplus paid in at least equal to 50 per cent of the subscribed capital.

A mutual company must hold bona fide applications for insurance upon which it shall issue simultaneously, or it shall have in force, at least twenty policies issued to at least twenty members, for the same kind of insurance, upon not less than two hundred separate risks. The maximum single risk shall not exceed 20 per cent of the admitted assets, or three times the average risk, or 1 per cent of the insurance in force, whichever is the greatest. It shall have collected a cash premium upon each application, which shall be held in cash or securities in which insurance companies are authorized to invest. The total cash premium shall be equal to not less than twice the maximum single risk assumed subject to one fire, nor less than ten thousand dollars.

Whenever applications for insurance, in the case of a mutual insurance company, have been received in sufficient number and amount, a statement shall be filed with the Insurance Commissioner showing: (*a*) the names and residences of the persons applying for insurance; (*b*) the amount agreed to be taken by each; and (*c*) the amount of money in the hands of the treasurer. The articles of agreement should be acknowledged in duplicate by the subscribers and forwarded to the Insurance Commissioner. After being approved by himself, by the Attorney General, and by the Governor, letters patent are issued.

As soon as the entire amount of the authorized capital of a stock fire insurance company has been paid in, the president or secretary of the company shall notify the Insurance Commissioner that it is ready to commence business. Upon satisfactory examination by the Insurance Commissioner a certificate will be forwarded to the company authorizing it to commence business.

Investment of Capital

The capital of a fire insurance company shall be invested in accordance with the provisions of the law. The regulations with respect to a stock fire insurance company apply also to a mutual fire insurance company, and are as follows:

(1) In the following kinds of real estate:

(*a*) Such as shall be requisite for its convenient accommodation in the transaction of its business.

(*b*) Such as shall have been conveyed to it in satisfaction of debts previously contracted in the course of its dealings.

(*c*) Such as shall have been purchased at sales upon judgments, decrees, or mortgages, obtained or made for debts due the company, or for debts due other persons where said company may have liens or encumbrances on the same, and the purchase is deemed necessary to save the company from loss. It shall not be lawful to purchase or hold real estate in any other case or for any other purpose. Any real estate other than that necessary for its accommodation in the transaction of its business, which has been held for a period of more than five years, shall be sold and disposed of within a period of six months after due notice from the Insurance Commissioner.

(2) In bonds of the United States or District of Columbia, or of any state or territory of the United States or Canada, and in farm loan bonds issued by Federal Land Banks.

(3) In the legally authorized bonds or notes of any city, county, township, municipality, school, or water district of the commonwealth or of any other state or territory of the United States or Canada.

(4) In the bonds or notes of any solvent railroad or street railway corporation upon which no default in interest has been made.

(5) In ground-rents and loans upon improved and unencumbered real estate. No loan on such real estate shall exceed $66\frac{2}{3}$ per cent of the fair market value at the time of making such loan.

(6) Any such company which has one million dollars of capital and one million dollars of surplus may invest in the capital of any like company organized, under the laws of any state of the United States, solely to transact the same class of business in countries outside of the United States. Such investment shall be limited to an amount not exceeding 30 per cent of the par value of the capital stock of the investing company.

Investment of Surplus

Any money over and above the capital may be invested in the securities above enumerated, or in the stock or other evidence of indebtedness of any solvent, dividend-paying corporation created under the laws of any state of the United States or loaned upon the pledge of the same, except its own stock. The current market value of the securities pledged as collateral for any loan shall be at least 20 per cent more than the sum loaned. Not more than one-fifth of its capital shall be invested in a single mortgage. If any investment or loan is made in a manner not authorized by the law, the officers or directors making or authorizing the same shall be personally liable for any loss occasioned.

Annual Reports

Every insurance company doing business in the state is required to submit to the Insurance Commissioner a statement setting forth its financial condition on the thirty-first day of December of each year.

Insurance companies from without the state, authorized to do business in the state, are obliged to render a report on or before March first of each year, showing premiums of every character and description received from business transacted in the commonwealth, during the year, and to pay into the state treasury the requisite tax upon all such premiums.

Since fire insurance companies are required to fill out forms prepared by the state, it is obvious that insurance companies will be compelled to formulate their accounting systems so that the required information will be readily obtainable. The law, therefore, exerts a potent influence on fire insurance accounting, and it is essential that accountants be familiar with state regulations pertaining to insurance. Before attempting to study the accounting system of the fire insurance company, it is desirable to discuss the characteristic features of the business.

The insurance business is based on the law of averages. Risks are assumed for a fee called a premium. The premiums must be sufficient to provide for payment of claims, administration expenses, and profit. Fire risks call for the payment of premiums in advance for the full term for which the insurance is effective. A premium received is, therefore, to be regarded as a constantly diminishing liability; this liability is called an unearned premium.

The unearned premium is one of the main reasons for state supervision of insurance companies. Stringent laws regulate the investment of unearned premium funds as well as of capital and surplus, since an insurance company is looked upon as a financial institution in which the element of public trust is present in an exceptionally high degree.

Preparation of the Annual Report

The annual report of each fire insurance company, which is made to each state in which it is authorized to do business, contains sufficient information to enable the insurance

department to check up violations of regulations. It also makes possible the assessment of taxes in a very efficient manner.

The report, though voluminous, can be divided into two general groups: first, that group dealing with the company's financial condition at the end of the year, properly supported by schedules of the more important assets and changes in the assets during the year; and second, statements of business effected and in force during the year. In depicting its financial condition, a company must give the information called for in the specimen report as shown herewith on pages 64 to 69. This report contains the following exhibits, supported by detailed schedules:

I. Capital stock.
II. Income.
III. Disbursements.
IV. Ledger assets.
V. Liabilities.
VI. Recapitulation of fire risks and premiums.
VII. Underwriting and investment.

The real starting point of the report is the amount of Net Ledger Assets at the end of the previous year. To this amount is added Income, and from the resultant balance are deducted Disbursements. The balance obtained should equal the Ledger Assets at the end of the year. It will be noted that the statements of Income and Disbursements show merely the net changes which have taken place in the ledger assets during the period under review.

To the total of the Ledger Assets so ascertained there are added numerous items which, since they do not appear on the books, have been classified as Non-Ledger Assets. Assets which, as a rule, cannot be realized upon quickly or which will bring but a fraction of their worth at a forced sale are next deducted in order to ascertain the Admitted Assets. Admitted Assets are those which are looked upon as immediately available for the liquidating of liabilities.

DOLLARS | CENTS

I—CAPITAL STOCK

1. Amount of capital paid up December 31 of current year . . . . . $..............................
2. Amount of ledger assets (as per balance), December 31 of previous year . . . . $..............................
3. ....crease of paid up capital during the year . . . .
4. Extended at

II—INCOME

	(1)	(2)	(3)	(4)	(5)
	*Gross Premiums Written and Renewed during the year per Lines 1-13, column (3), Page 6	DEDUCT			Net Premiums
		Return Premiums	Reinsurance Premiums	Total Deduction	
5. Fire . . .					
6. Ocean marine .					
7. Motor vehicles .					
8. Earthquake . .					
9. Inland navigation and transportation .					
10. Tornado, windstorm, hail (except growing crops) and cyclone .					
11. Hail (growing crops only) . . .					
12. Sprinkler leakage .					
13. Riot, civil commotion and explosion .					
14. Aircraft . . .					
All other, viz:					
15.					
16.					
17. †Totals . . .					

18. Deposit premiums written on perpetual risks (gross) . . . .
19. Gross interest on mortgage loans, per Schedule B, less $..............................accrued interest on mortgages acquired during the year. . . . . $..............................
20. Gross interest on collateral loans, per Schedule C . . . .
21. Gross interest on bonds $..............................and dividends on stocks $..............................less $.............................. accrued interest on bonds acquired during the year, per Schedule D . . . .
22. Gross interest on deposits in trust companies and banks, per Schedule N. . . . .
23. Gross interest from all other sources (give items and amounts):
24. ....
25. ....
26. Gross income from company's property, including $..............................for company's occupancy of its own buildings, less $..............................interest on incumbrances, per Schedule A . . . .
27. Total interest and rents . . . .
28. From other sources (give items and amounts):
29. .... $..............................
30. ....
31. ....
32. Increase in liabilities during the year on account of reinsurance treaties . . . .
33. Remittances from Home Office to United States Branch (gross) . . . .
34. *Borrowed money gross $..............................less amount repaid $.............................. . . . .
35. From agents' balances previously charged off . . . .
36. Gross profit on sale or maturity of ledger assets, viz:
    (a) Real estate, per Schedule A. $..............................
    (b) Bonds, per Schedule D. . . . .
    (c) Stocks, per Schedule D. . . . .
37. Gross increase, by adjustment, in book value of ledger assets, viz:
    (a) Real estate, per Schedule A. $..............................
    (b) Bonds, per Schedule D (including $..............................for accrual of discount) . . . .
    (c) Stocks, per Schedule D. . . . .
38. Total Income . . . .
39. Amount carried forward

*By gross premiums is meant the aggregate of all the premiums written in the policies or renewals and/or contracts of reinsurance. Are they so returned in this statement? Answer:..............................

†To be supported by distribution of premiums by states as per Schedule T.

*Company is at liberty to state transaction briefly, so that explanation can be carried as footnote in department report.

Amount brought forward | DOLLARS | CENTS

III—DISBURSEMENTS

	(1) Gross Amount Paid for Losses, less Discounts, if any	(2) DEDUCT Salvage	(3) DEDUCT Reinsurance	(4) Total Deduction	(5) Net Amount Paid Policyholders for Losses
1. Fire					
2. Ocean marine					
3. Motor vehicles					
4. Earthquake					
5. Inland navigation and transportation					
6. Tornado, windstorm, hail (except growing crops) and cyclone					
7. Hail (growing crops only)					
8. Sprinkler leakage					
9. Riot, civil commotion and explosion					
10. Aircraft					
All other, viz:					
11.					
12.					
13. Totals					

14. (Net amount paid for losses incurred in previous years included in item 13, Col. 5 $)
15. Loss adjustment expenses
16. Agents' compensation, including brokerage $
17. Agents' allowances
18. Field supervisory expenses:
    (a) Salaries of field men $
    (b) Expenses of field men
    (c) Executive—traveling expenses of others than field men
19. Salaries and fees—directors, officers and clerks
20. Rents, including $ .... for rent only for company's occupancy of buildings owned
21. General office maintenance and expense
22. Furniture and fixtures, including rent of and repairs to same
23. Maps, including corrections
24. Inspections, surveys, commercial reports and fire records, including underwriters' boards and tariff associations
25. Taxes, licenses and fees:
    (a) State taxes on premiums $
    (b) Insurance department
    (c) Other state taxes
    (d) Federal
    (e) Fire department
    (f) Fire patrol and salvage corps
    (g) All other (except on real estate)
26. Postage, telegraph and telephone, exchange and express
27. Legal expenses, excluding legal expenses on losses
28. Advertising and subscriptions
29. Printing and stationery
30. Miscellaneous, itemized, (a) .... $
    (b)
    (c)
31. Deposit premiums returned on perpetual risks
32. Agents' balances charged off
33. Real estate expenses:
    (a) Repairs and expenses $
    (b) Taxes
34. Remittances to Home Office by United States Branch (gross)
35. Decrease in liabilities during the year on account of reinsurance treaties
36. Borrowed money repaid gross $ .... less amount borrowed $
37. Interest on borrowed money
38. Paid stockholders for dividends (amount declared during the year, cash, $ ....; stock, $ ....)
39. Scrip or certificates of profit redeemed in cash, $ ....; interest paid to scripholders, $
40. Gross loss on sale or maturity of ledger assets, viz:
    (a) Real estate, per Schedule A. $
    (b) Bonds, per Schedule D.
    (c) Stocks, per Schedule D.
41. Gross decrease, by adjustment, in book value of ledger assets, viz:
    (a) Real estate, per Schedule A. $
    (b) Bonds, per Schedule D (including $ .... for amortization of premiums)
    (c) Stocks, per Schedule D.
42. Total Disbursements
43. Balance

IV—LEDGER ASSETS

			Dollars	Cents	Dollars	Cents
1.	Book value of real estate (less $______ encumbrances), per Schedule A					
2.	Mortgage loans on real estate, per Schedule B, first liens, $______ other than first, $______					
3.	Loans secured by pledge of bonds, stocks or other collateral, per Schedule C.					
4.	Book value of bonds, $______, and stocks, $______, per Schedule D					
5.	Cash in company's office	$				
6.	Deposits in trust companies and banks not on interest, per Schedule N.					
7.	Deposits in trust companies and banks on interest, per Schedule N.					
8.	(a) Agents' balances representing business written on or after October 1 of current year					
9.	(b) Agents' balances representing business written prior to October 1 of current year					
10.	Bills receivable, taken for fire risks					
11.	Bills receivable, taken for risks other than fire					
12.	Other ledger assets, viz:					
13.						
14.						
15.						
16.	Total Ledger Assets, as per Balance on page 3					

Non-Ledger Assets

		Dollars	Cents	Dollars	Cents
17.	Interest due, $______ and accrued, $______ on mortgages, per Schedule B				
18.	Interest due, $______ and accrued, $______ on collateral loans, per Schedule C, Part 1.				
19.	Interest due, $______ and accrued, $______ on bonds, not in default, per Schedule D, Part 1.				
20.	Interest due, $______ and accrued, $______ on other assets, (give items and amounts)				
21.					
22.					
23.	Rents and interest due, $______ and accrued, $______ on company's property or lease				
24.	Total				
25.	Market value of real estate over book value, per Schedule A				
26.	*Market / Amortized or investment {value (not including interest in item 19) of bonds over book value, per Schedule D				
26A.	Market value of stocks over book value, per Schedule D				
27.	Other non-ledger assets, viz:				
28.					
29.					
30.	Gross Assets				

Deduct Assets Not Admitted

		Dollars	Cents	Dollars	Cents
31.	Company's stock owned, $______; loans on, $______				
32.	Supplies, printed matter and stationery				
33.	Furniture, fixtures and safes				
34.	Agents' balances representing business written prior to October 1 of current year.				
35.	Bills receivable, past due, taken for premiums				
36.	Excess of bills receivable, not past due, taken for risks over the unearned premiums thereon				
37.	Loans on personal security, endorsed or not				
38.					
39.	Book value of real estate over market value per Schedule A				
40.	Book value of bonds over {*market / amortized or investment} value, per Schedule D				
40A.	Book value of stocks over market value, per Schedule D				
40B.	Interest due and accrued on mortgage loans (state basis)				
40C.					
41.	Other assets not admitted, viz:				
42.	Deposits in suspended banks, less $______ estimated amount recoverable				
43.	Total Admitted Assets				

(a) Agency and home office premiums not over three months due, less reinsurance, return premiums, commissions and agents' credit balances. No other items to be included.

(b) Agency and home office premiums over three months due, less reinsurance, return premiums and commissions. No other items to be included.

*Strike out "Market" or "Amortized or Investment".

V—LIABILITIES

1. Losses and claims:

	(1) Adjusted	(2) Reported or in Process of Adjustment	(3) Incurred but not Reported	(4) Resisted	(5) Total	(6) Deduct reinsurance per Schedule E, columns (2) and (4)	(7) Net Unpaid Claims
	$	$	$	$	$	$	DOLLARS CENTS
2. Fire							
3. Ocean marine							
4. Motor vehicles							
5. Earthquake							
6. Inland navigation and transportation							
7. Tornado, windstorm, hail (except growing crops) and cyclone							
8. Hail (growing crops only)							
9. Sprinkler leakage							
10. Riot, civil commotion and explosion							
11. Aircraft							
All other, viz:							
12.							
13.							
14. TOTALS							

15. Estimated expenses of investigation and adjustment of losses (paid losses, $..........; unpaid losses, $..........)
16. *Gross premiums (less reinsurance) received and receivable upon all unexpired fire risks, $..........; unearned premiums thereon, per Recapitulation, page 7, item 18, column 5 . . . $..........
17. *Gross premiums (less reinsurance) received and receivable upon all unexpired risks, other than fire risks, $..........; unearned premiums thereon, per Recapitulation, page 7, item 31, column 7 . . ..
18. Total unearned premiums as computed above.
19. Amount reclaimable by the insured on perpetual fire insurance policies, being ....per cent. of the premium or deposit received .
20. Unused balances of bills and notes included in admitted assets, taken in advance of premiums on open marine and inland policies or otherwise, returnable on settlement not included in items 16 and 17 above .
21. Principal unpaid on scrip or certificates of profits authorized or ordered to be redeemed.
22. Interest due or accrued, including $..........on borrowed money.
23. Dividends declared and unpaid to stockholders, $.........., to policyholders, $..........
24. Salaries, rents, expenses, bills, accounts, fees, etc., due or accrued . . . .
25. Estimated amount hereafter payable for federal, state and other taxes based upon the business of the year of this statement . . . .
26. Contingent commissions or other charges due or accrued . . . .
27. Funds held under reinsurance treaties
28. Due and to become due for borrowed money .
29. All other liabilities, viz: ....
30. ....
31. ....
32. ....
33. Total Amount of All Liabilities, Except Capital
34. Capital paid up . . . $..........
35. Surplus over all liabilities . . . .
36. Surplus as regards policyholders.
37. Total
38. Amount of such surplus which constitutes a permanent reserve fund represented by scrip which by the terms of its issue cannot be redeemed so as to diminish said reserve (carried inside), $..........

*By gross premiums is meant the aggregate of all the premiums written in the policies or renewals and/or contracts of reinsurance. Are they so returned in this statement? Answer: ....

UNDERWRITING AND INVESTMENT EXHIBIT

Showing the Sources of the Increases and the Decreases in Surplus During the Year

UNDERWRITING EXHIBIT				Gain in Surplus	Loss in Surplus
PREMIUMS					
1. Total Premiums, per items 17 and 18, page 2, $..................less $..................per item 31, page 3.					
2. Add unearned premiums December 31 of previous year, per item 4 of last year's exhibit					
3. Total					
4. Deduct unearned premiums December 31 of current year, per item 18, and $..................reclaimable on perpetual insurance per item 19, page 5					
5. **Premiums earned during the year**					
LOSSES					
6. Losses paid, per item 13, page 3					
7. Add salvage and reinsurance recoverable December 31 of previous year, per item 9 of last year's exhibit					
8. Total					
9. Deduct salvage and reinsurance recoverable December 31 of current year, per items (a)..................page 4					
10. Balance.					
11. Add unpaid losses December 31 of current year, per item 14, page 5					
12. Total					
13. Deduct unpaid losses December 31 of previous year, per item 11 of last year's exhibit					
14. **Losses incurred during the year**					
LOSS ADJUSTMENT EXPENSES					
15. Loss adjustment expenses paid during the year, per item 15, page 3					
16. Add loss adjustment expenses unpaid December 31st of current year, per item 15, page 5					
17. Total					
18. Deduct loss adjustment expenses unpaid December 31st of previous year, per item 16 of last year's exhibit					
19. **Loss adjustment expenses incurred during the year**					
UNDERWRITING EXPENSES					
20. (c) Underwriting expenses paid during the year, per items on page 3 less investment expenses included therein					
21. (a) Add underwriting expenses unpaid December 31st of current year, per liability exhibit, page 5					
22. Total					
23. Deduct underwriting expenses unpaid December 31 of previous year, per item 21 of last year's exhibit					
24. **Underwriting expenses incurred during the year**					
25. **Underwriting losses and expenses**					
26. (b)..................**from underwriting during the year**					
UNDERWRITING PROFIT AND LOSS ITEMS					
27. Gain from agents' balances previously charged off, per item 35, page 2, $..................and from other underwriting income $..................per income exhibit, page 2 (a)..................					
28. Loss from agents' balances charged off $..................and from other underwriting disbursements, $.................., per disbursement exhibit, page 3, other than losses and expenses, per items 6, 15 and 20 of this exhibit (a)..................					
29. (b)..................from items 27 and 28					
30. Agents' balances and bills receivable not admitted December 31 of previous year, per item 31 of last year's exhibit..................$..................					
31. Agents' balances and bills receivable not admitted December 31 of current year, per items 34, 35 and 36, page 4..................$..................					
32. (b)..................from items 30 and 31					
33. (b)..................**from profit and loss items**					
34. (b)..................**from underwriting and profit and loss items during the year (carried forward)**					

(a) Give statement number of each item or portion thereof included herein.
(b) Write "Gain" or "Loss".
(c) In order to secure uniformity in the reports of the various companies all companies are directed to include in this item all disbursements except payments to policyholders, per item 18, page 3; agents' balances charged off, in item 32, page 3; loss adjustment expenses; repairs, expenses and taxes on real estate; such other taxes and fees as apply to investments and personal property only; dividends to stockholders; deposit premiums returned; loss on sale or maturity and decrease in book value of ledger assets, and such other items, if any, as are known to apply exclusively to the assets of the company and to deduct from the total of said items as investment expenses one-eighth of one per cent. of the mean invested assets, viz: Real estate owned, mortgage loans, collateral loans and stocks and bonds owned.

INVESTMENT EXHIBIT

				Gain in Surplus	Loss in Surplus
35. Brought forward					
INTEREST AND RENTS					
36. Interest, dividends and rents received during the year, per item 27, page 2, less item 37, page 3, and less $______ amortization and plus $______ accrual					
37. Deduct interest, dividends and rents due and accrued December 31 of previous year, per item 39 of last year's exhibit					
38. Balance					
39. Add interest, dividends and rents due and accrued December 31 of current year, per item 24, page 4, less the sum of item 22, page 5, and item 40B, page 4					
40. Add interest and rents paid in advance December 31 of previous year, per item 42 of last year's exhibit					
41. Total					
42. (a) Deduct interest and rents paid in advance December 31 of current year, per liability exhibit, page 5					
43. Gross Interest and Rents Earned During the Year					
INVESTMENT EXPENSES					
44. (c) Investment expenses paid during the year, per disbursement exhibit, page 3 (attach exhibit):					
45. Deduct investment expenses unpaid December 31 of previous year, per item 47 of last year's exhibit					
46. Balance					
47. (a) Add investment expenses unpaid December 31 of current year, per liability exhibit, page 5, viz:—					
48. Investment expenses incurred during the year					
49. Net interest and rents earned during the year					
PROFIT ON INVESTMENTS					
50. Gain from sale of ledger assets, per item 36, page 2					
51. Gain from increase in book value of ledger assets, other than for accruals, per item 37, page 2					
52. Gain from change in difference between book and market value during the year					
53. Gain from other investments, viz: (Give items and amounts)					
54. Profit on Investments during the year					
LOSS ON INVESTMENTS					
55. Loss from sale of ledger assets, per item 40, page 3					
56. Loss from decrease in book value of ledger assets, other than for amortization, per item 41, page 3					
57. Loss from change in difference between book and market value during the year					
58. Loss from other investments, viz: (Give items and amounts)					
59. Loss on Investments during the year					
60. (b)______ from investment profit and loss items					
61. (b)______ from investments during the year					
62. Total gains and losses from underwriting and investments					

MISCELLANEOUS EXHIBIT

	Gain in Surplus	Loss in Surplus	Gain in Surplus	Loss in Surplus
63. Dividends declared to stockholders during the year				
64. Dividends declared to policyholders during the year				
65. Remittances from Home Office (gross)				
66. Remittances to Home Office (gross)				
67. ______crease in special reserves				
68. (a, b)______ from other sources				
69.				
70.				
71. Net (b)______ from items 63-70				
72. Total gains and losses in surplus during the year				
73. Surplus December 31 of previous year, per item 74 of last year's exhibit				
74. Surplus December 31 of current year, per item 35, page 5				
75. ______crease in surplus during the year (enter in column to balance)				
76. Totals				

77. Per cent. of losses incurred to premiums earned______

78. Per cent. of loss adjustment expenses incurred to premiums earned______

79. Per cent. of underwriting expense incurred to premiums earned______

80. Per cent. of investment expenses incurred to gross interest and rents earned______

81. Per cent. of total losses and expenses incurred and dividends declared to total income earned (sum of lines 25, 48, 59, 63 and 64 divided by the sum of lines 5, 33, 43 and 54)______

(a) Give statement number of each item or portion thereof included herein.
(b) Write "Gain" or "Loss".
(c) Include in this item one-eighth of one per cent. of the mean invested assets; repairs, expenses and taxes on real estate; such other taxes and fees as apply to investments and personal property only; and such other items, if any, as are known to apply exclusively to the assets of the company.

From the total Admitted Assets are deducted the Liabilities, to obtain the Surplus.

The Underwriting and Investment Exhibit corresponds closely to a profit and loss statement. It reconciles the surplus at the end of the previous year with the surplus at the end of the current year. It is prepared with the aid of information appearing in the last annual statement and in the current annual statement. There must be considered accrual and other liability items which appear in both reports, but in most instances do not appear upon the ledger. Examples of these items are, interest and rent accrued, unearned premiums, and losses unpaid. As the Income and Disbursements Statement shows merely the changes in the Net Ledger Assets, it is necessary to refer to the Underwriting and Investment Exhibit to ascertain the sources of the increases and decreases in the surplus account.

Other exhibits show total business in force, total volume of business written during current year, and business written, premiums received, losses paid, and losses incurred in each state receiving a copy of the report.

Income and Disbursements Statement

For one unfamiliar with insurance reports, the Income and Disbursements Statement needs additional explanation. We may contrast it with a statement of receipts and disbursements and with a statement of income and expense. A statement of receipts and disbursements is in reality a detailed treasurer's report, showing all cash received and paid during a period, the cash balance at the beginning of the period, and the balance of cash on hand at the end of the period. An income and expense statement reveals the changes in the surplus account of a business. A Statement of Income and Disbursements prepared for the Insurance Commissioner serves neither of these purposes. The income portion of the statement accounts for the increases in the

value of assets shown on the ledger. These increases may be due to actual income, to the creation of offsetting liabilities such as borrowed money, and to adjustments in the value of ledger assets. Transactions involving merely the exchange of one ledger asset for another are not reported in this statement. For example, bonds valued at $10,000 may be sold for $10,000 in cash, thereby increasing the balance of cash and decreasing the value of bonds by an equal amount. However, if bonds carried on the ledger at $10,000 are sold for $10,350, the $350 is placed in the income statement, as this transaction has increased the total of the Net Ledger Assets. But accrued interest on bonds, mortgages, and other assets owned cannot be placed in the income statement since these items are not regarded as ledger assets. Decreases in ledger assets are reflected in the disbursement portion of the statement. This is neither a statement of cash payments nor of expenses. It includes the payment of accrued liabilities of the past fiscal period but omits entirely the accrued liabilities as of the close of the current period. Thus it will be seen that the Income and Disbursements Statement does not give a true picture of the financial results of the year.

However, there is a decided similarity between a treasurer's statement and the Income and Disbursements Statement demanded by the Insurance Commissioner. A treasurer's statement is a condensed report of the changes taking place in one asset account called cash. If the "treasurer's report of cash" idea is applied to all ledger assets the changes taking place within the ledger assets as a group can be summarized in the Statement of Income and Disbursements.

Fire Insurance Company Practice

The business of a large insurance company is complex. Solicitors, called agents, are appointed to accept risks. Risks accepted must be charted or plotted on maps to enable the company officials to know when the maximum

hazard has been reached in any district. If risks accepted exceed the maximum hazard on any one building or in any given district, reinsurance must be effected. The company will then cover, through some other insurance company, excess hazards which have been accepted by it. Reports of fire losses are received daily, and they must be investigated by special agents or loss adjusters. If reinsurance exists, upon satisfactory proof of loss the company must file a claim for a proportion of the loss and cost of adjusting with the reinsuring company.

The acceptance of risks necessarily implies the receipt of premiums. Premiums are collected by the agents, who render reports to the company. These premiums furnish the bulk of the income of an insurance company, but since they are received in return for services to be rendered in the future, the insurance company cannot regard them as earnings at the time of their receipt. The unearned portion of the premium, often called a reinsurance reserve, must be determined at stated intervals and invested in accordance with state laws.

In addition to the premium collections, another source of income is interest on investments. Since the receipts of many of the companies aggregate millions of dollars during the course of a year, it is necessary that provision be made for proper investing of these funds, accounting for the investments, and collection of the earnings.

It may easily be seen that the issuance of policies on the part of such a company, with the accompanying flood of premium payments and claims for losses, necessitates a thorough system of internal check either by means of a minute subdivision of work and reports or the instrumentality of an auditing department. Furthermore, it is often necessary to provide a statistical department to furnish information on policy expirations, to calculate the reserve required against outstanding policies, to prepare reports of insurance written and premiums collected in each state, and to determine the profitableness of the business of each agent.

CHAPTER VII

THE ACCOUNTING SYSTEM OF A FIRE INSURANCE COMPANY

Detail Records

Orders for insurance usually come from agents with whom the company has contracted to pay specified commissions in return for business written. The agents are supplied with policies, which are numbered consecutively. Upon the acceptance of a risk for the company, a policy is issued to the insured. A Daily Report (Form VIII), containing a description of the risk, amount covered, rate of insurance, location of property, and number of policy issued, is sent by the agent to the home office. Copies of special endorsements made on the policy are also attached to the Daily Report. The Daily Report is checked by the home office against Tickler Books (Form IX) which consist of a numerical list of the policies in the agent's possession. This is for the purpose of determining whether or not the agent has accounted for all the policies issued to him. The Daily Report is checked for rate, premium collected, and commission due the agent. The next step is to chart the risk on the maps in the mapping or underwriting department. These maps are prepared for the purpose of enabling the company to determine the gross amount at risk in any territory at any time.

The Daily Report is forwarded to the bookkeeping department, where it is registered on an Abstract (Form X) and a carbon copy made. These Abstracts, filed according to agency and policy number, are held in an open file awaiting the receipt of the agent's monthly account. They are then checked against the items appearing in this account.

The space below for Home Office use only DAILY REPORT

Commission Charged...... %......

Classification

Renewal of Policy No. ....

Tariff No. ....

Policy No. ....

BLANK INSURANCE COMPANY

Registration

Map: Sheet No. .... Other Insurance in this Company on or in SAME Premises. ....

Block No. ....

Street No. .... Other Insurance in this Company on or in ADJOINING Premises. ....

Agency ....

Amount $ Rate Premium $

PREMIUM: DOLLARS

ASSURED:

TERM:

from the day of 19 , at noon,

to the day of 19 , at noon,

Against all Direct Loss and Damage by FIRE.

Not Exceeding Dollars

EXACT COPY OF FORM ON POLICY

This Report Mailed.................19.... ....Agent

FORM VIII

DAILY REPORT

AGENCY ______________________ AGENT ______________________

Date Sent		Date Sent		Date Sent		Date Sent	
From		From		From		From	
To		To		To		To	
Policy No.	Date Recd.	Policy No.	Date Recd.	Policy No.	Date Recd.	Policy No.	Date Recd.
1		26		51		76	
2		27		52		77	
3		28		53		78	
4		29		54		79	
5		30		55		80	
6		31		56		81	
7		32		57		82	
8		33		58		83	
9		34		59		84	
10		35		60		85	
11		36		61		86	
12		37		62		87	
13		38		63		88	
14		39		64		89	
15		40		65		90	
16		41		66		91	
17		42		67		92	
18		43		68		93	
19		44		69		94	
20		45		70		95	
21		46		71		96	
22		47		72		97	
23		48		73		98	
24		49		74		99	
25		50		75		100	

Form IX

TICKLER BOOK

PREMIUMS WRITTEN (FIRE)

Location | Policy | Agency | State | Agency No.

Assured | Reins. Co. No.

STAT L

Date of A. P. | Term | Expiry | Amount Ins. | Rate of Comm. | Premium | Classification

Survey No.............................. | Abstracted by | Date Abstracted | Inc. in Acct. for Month of

Kind of Property | Checked

Date...

By...

REMARKS

BLANK INSURANCE COMPANY

Form X

REGISTRATION ABSTRACT OF DAILY REPORT

AGENTS' MONTHLY ABSTRACT OF POLICIES WRITTEN

Agency No........... State No........... Abstract of Fire Policies Issued in Month of..............................19... By............Agent At...............

Policy Number	Term	Expiration	Amount	Total Premium	Premium @ 15%	Premium @ 20%	Premium @ 25%
Total							

CANCELLATIONS AND RETURN PREMIUMS

Policy Number	Term	Expiration	Amount Canceled	Return Premium @ 15%	Return Premium @ 20%	Return Premium @ 25%	Original Premium
Total							

Form XI

AGENTS' MONTHLY ACCOUNT CURRENT

Account Current for the Month of..19....

In Account with..............................Agent at..

Dr.			*Cr.*			
Gross Premiums, as per Abstract.				Prem.	Com.	
			Commissions, 15% on $......		$......	
Less Returned Premiums, "			Commissions, 20% on $......		$......	
			Commissions, 25% on $......		$......	
Net Premiums.............			Total Gross Commission, $			
Returned Premiums on Policies Credited to Home Office.......				Prem.	Com.	
			Ret. Com., 15% $.....		$......	
			Ret. Com., 20% $.....		$......	
			Ret. Com., 25% $.....		$......	
			Deduct Total Ret. Com.....		$......	
			Net Com................		$......	
			Check to the order of the Company.....			
			Balance due Company................			
			Premiums on Policies Charged to Home Office for Collection................			
Total..............			Total....................			

Pol. No.	Ret. Prem.	Rate

Pol. No.	Premium	Rate of Brokerage	Broker

AGENCY..............................

Agency No..............................

Received..............................

Closed on Reg..............................

Audited..............................

Entered on Abst..............................

FIRE ABSTRACT FOR THE

Month of..............................19...

..............................Agent

NOTICE TO AGENTS

Credits for Return Premiums will not be allowed until all vouchers, policies or endorsements are received at this office.

The account current is the basis of our bookkeeping system and should be forwarded to the Company promptly after the close of each month in order to reach us not later than the 5th. It hampers us greatly when it is delayed.

FORM XI (Reverse)

After the agent's account has been checked, the duplicate copies of the Abstracts are forwarded to the statistical department, which assembles data of many kinds concerning policies issued, location and types of risks, amount of insurance, etc.

Once a month each agent renders to the company a report of business transacted during the month (Form XI), termed the Monthly Abstract of Fire Policies Written or the Agency Monthly Account Current. This report shows

RETURN PREMIUMS (FIRE)

Location	Policy	Agency	State	Agency No.
	Assured			Reins. Co. No.

Date of Canc. or Rebate End.	Term	Expiration	Amt. Cancelled	Rate of Comm.	Return Prem.	Original Prem.

Classification	Abstracted by	Date Abstracted	Inc. in Acct. for Month of

Checked

Date..

By..

REMARKS

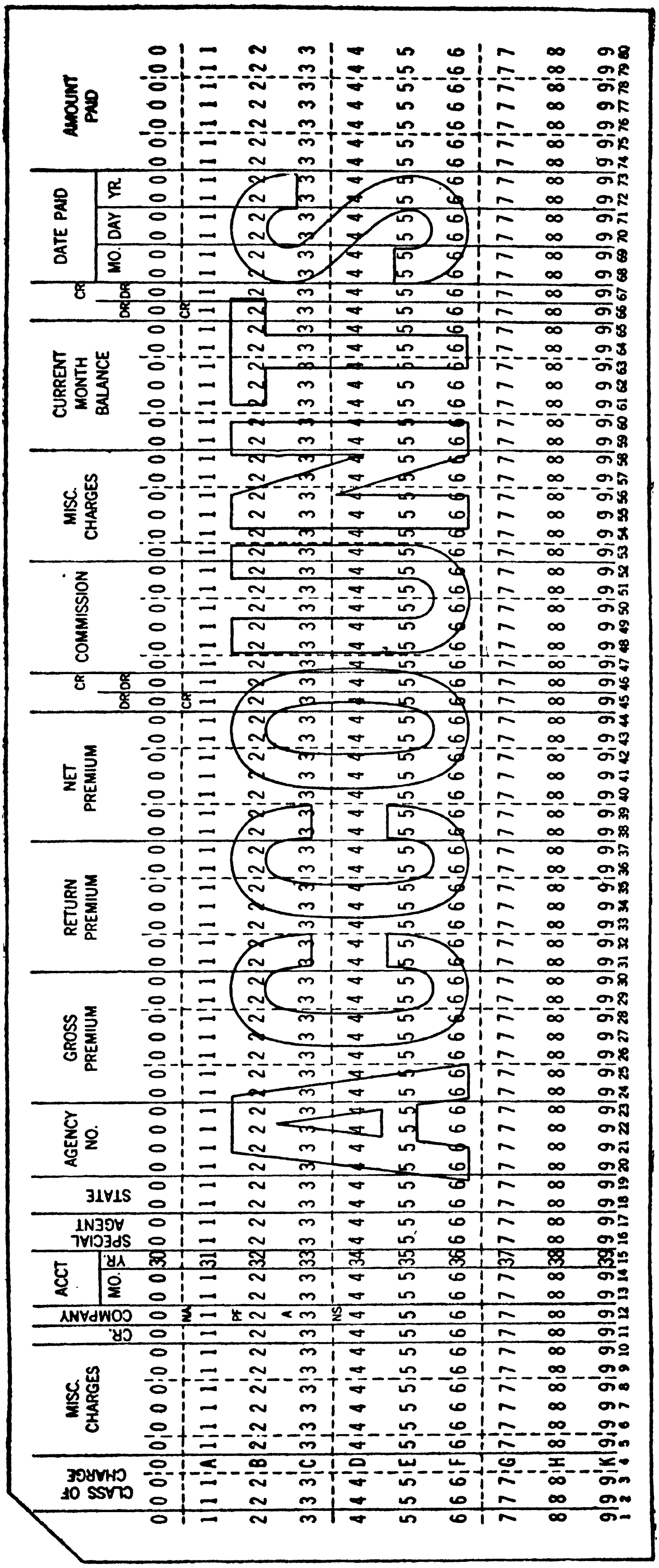
ACCTS

BLANK INSURANCE COMPANY

Form XII

CANCELED REGISTRATION ABSTRACT

policies issued together with the premiums thereon. In this report are indicated also the policies canceled and the return premiums paid, the net commissions due the agents, and finally the established monthly balance due to the company. When this report is received by the home office, it is audited by checking with the Registration Abstracts to see that an accounting has been made for all premiums. It is also compared with the Canceled Registration Abstract (Form XII) for verification of the returned premiums and (charged-back) commissions.



FORM XIII
TABULATING CARD

AGENTS JOURNAL

COMPANY________ CLASS________ STATE________ MONTH________ 19__

	AGENCY	SPECIAL AGENT	GROSS PREMIUM	RETURN PREMIUM	NET PREMIUM	COMMISSION	MISC. CHARGES	CURRENT MONTH BALANCE

FORM XIV

AGENTS JOURNAL

The monthly reports of the agents, after being checked, are coded. A tabulating card (Form XIII) is punched for the total premiums, total return premiums, total net premiums, total net commission, any approved charges the agency has made against the company, and the established monthly balance. These cards are run through a printer tabulator, to obtain an Abstract of Agents' Reports or Agents' Journal (Form XIV). Postings are made from this record to the general ledger and to the subsidiary agency

Policy Reinsured	Agency	State	Agency No.	Date of Abstract	Office No. ②	
Property of			Location			
REINSURANCE EFFECTED						
Reins. Co. Pol. No.	Name of Reinsurance Co.	Reins. Co. No.	Date Effected	Term Orig. Pol.	Expiration	Class
Risk	Amount Reinsured	Rate		Reins. Premium		
		Commission @ %				
		Net				
		Month of Account				
Dept.	Kind of Coverage					

Form XV

REINSURANCE REGISTRATION ABSTRACT

ledgers. The Agents' Journal is a condensed record of the work of each agency as shown by the registration abstracts.

The reinsurance of risks originates with the underwriting department. If the risk accepted involves a greater potential liability than the company desires to assume, then recourse is had to reinsurance. A portion of the risk is transferred to another insurance company either under a specific agreement called a treaty or by submitting an individual risk to any insurance company with whom a treaty may not have been made. When an insurance com-

pany accepts the reinsured risk it signifies its acceptance of the contract by signing a form known as a binding report. Reinsured risks are then recorded upon Reinsurance Registration Abstracts (Form XV). When the reinsurance contract or policy is received a record of the policy number is entered upon the abstract. Carbon copies of the Reinsurance Registration Abstract are made out for office use. Thus, one copy is filed by office number for general reference, another copy is sent to the statistical department, a third copy is filed by expiration date, etc. These abstracts are summarized by companies at the end of the month. Reinsurance canceled likewise is placed upon abstracts and summarized in the above manner. The premiums on canceled reinsurance are deducted from the premiums on reinsurance placed, and the net premiums due each company, together with commissions and sundry charges, are entered in a Reinsurance Journal (Form XVI). When a payment is made to any company for reinsurance, copies of the abstracts showing the details of the premiums being paid are forwarded with the check.

From time to time, agents report the cancelation of policies, and persons carrying insurance often request the home office to cancel their policies. Furthermore, the insurance company, for sufficient reasons, may cancel a policy. It is necessary to discuss cancelations briefly at this point. If the policy is canceled by the agent at the request of the insurance company, the insured is entitled to a pro-rata portion of the premium, which covers the unexpired time. If the insured requests cancelation, then an amount less than the pro-rata portion is returned, and this is known as the short rate. The amount to be returned to the insured can be determined by reference to a Short Rate Table (Form XVII). Thus if a 1-year policy, which has been in existence 17 days, is canceled by the insured, he will be charged with 15 per cent of the premium, i.e., 85 per cent of the premium will be returned to him. When a 4-year policy is canceled after a life of 21 months, the

CO. __________ Month

REINSURANCE BALANCES

COMPANY	Net Premiums	Commissions	Sundry	Balance	Total From Last Month	Cash	Net Balance Forward

FORM XVI
REINSURANCE JOURNAL

Time Earned	Percentage to Charge				Time Earned	Percentage to be Charged
	2 Year	3 Year	4 Year	5 Year		
1 month....	11	8	6	5	1 day.........	2
2 months...	17	12	9	8	2 days........	4
3 months...	23	16	12	10	3 days........	5
4 months...	29	20	15	13	4 days........	6
5 months...	34	24	18	15	5 days........	7
6 months...	40	28	22	18	6 days........	8
7 months...	43	30	23	19	7 days........	9
8 months...	46	32	25	20	8 days........	9
9 months...	49	34	26	21	9 days........	10
10 months...	51	36	28	23	10 days........	10
11 months...	54	38	29	24	11 days........	11
12 months...	57	40	31	25	12 days........	11
13 months...	61	43	33	27	13 days........	12
14 months...	64	45	35	28	14 days........	13
15 months...	68	48	37	30	15 days........	13
16 months...	71	50	38	31	16 days........	14
17 months...	75	53	40	33	17 days........	15
18 months...	79	55	42	34	18 days........	16
19 months...	82	58	44	36	19 days........	16
20 months...	86	60	46	38	20 days........	17
21 months...	89	63	48	39	25 days........	19
22 months...	93	65	50	41	30 1 mo.........	20
23 months...	96	68	52	42	45 days........	27
24 months...	100	70	54	44	60 2 mos........	30
25 months...	...	73	56	45	75 days........	37
26 months...	...	75	58	47	90 3 mos.......	40
27 months...	...	78	60	48	120 4 mos.......	50
28 months...	...	80	62	50	150 5 mos.......	60
29 months...	...	83	63	52	180 6 mos.......	70
30 months...	...	85	65	53	210 7 mos.......	75
31 months...	...	88	67	55	240 8 mos.......	80
32 months...	...	90	69	56	270 9 mos.......	85
33 months...	...	93	71	58	300 10 mos.......	90
34 months...	...	95	73	59	330 11 mos.......	95
35 months...	...	98	75	61	360 12 mos.......	100
36 months...	...	100	77	63		
37 months...	...	...	79	64		
38 months...	...	...	81	66		
39 months...	...	...	83	67		
40 months...	...	...	85	69		
41 months...	...	...	87	70		
42 months...	...	...	88	72		
43 months...	...	...	90	73		
44 months...	...	...	92	75		
45 months...	...	...	94	77		
46 months...	...	...	96	78		
47 months...	...	...	98	80		
48 months...	...	...	100	81		
49 months...	...	...	...	83		
50 months...	...	...	...	84		
51 months...	...	...	...	86		
52 months...	...	...	...	88		
53 months...	...	...	...	89		
54 months...	...	...	...	91		
55 months...	...	...	...	92		
56 months...	...	...	...	94		
57 months...	...	...	...	95		
58 months...	...	...	...	97		
59 months...	...	...	...	98		
60 months...	...	...	...	100		

FORM XVII

SHORT RATE TABLE

insured is charged 48 per cent and 52 per cent of the premium paid will be returned to him. It will be seen from an analysis of the Short Rate Table that the insured is penalized when he cancels a policy in that he gets back less than the pro-rata amount of the premium for the unexpired time.

When the insured decides to cancel his policy he gives it to the agent, who forwards a check for the short rate premium to the insured and then returns the policy to the insurance company as a voucher to support the agent's charge in his monthly account. Upon receipt of the policy the underwriting or mapping department removes the risk from its maps. In the bookkeeping department a Canceled Registration Abstract, previously referred to, is made, showing the date each policy is canceled, policy number, name of assured, term, expiration, amount of risk canceled, return premium, and commission charged back. A charged-back commission represents a charge against the original commission on the policy, which is due to the cancelation of the policy because of excess hazards, or failure of the policy holder to keep the policy until matured. The Canceled Registration Abstract corresponds to the credit memorandum issued by a trading concern when merchandise is returned by one of its customers.

The agent will report the cancelation to the home office on the Monthly Account, under the section designated Cancelations and Return Premiums. On this form the agent takes credit for the return premium he has paid the insured and deducts the amount from the total which he owes to the home office. The monthly account is audited at the home office, and if found correct the deduction is allowed.

It may be stated that when a policy is given to a broker for cancelation by the insured, the remittance of the short rate is effected, in most instances, by the home office. Only a few brokers, who have very large accounts with the home office, are permitted to pay out return premiums and to

deduct them on their monthly abstract. In addition to the premium, the item of commission must be adjusted. At the time the policy was written the agent claimed credit for the commission. When a policy is canceled the agent is no longer entitled to the full amount of the commission. The amount of the commission to be returned to the home office is charged by the agent against himself on the Monthly Account, and is added to his remittances to the home office. If reinsurance existed on a risk canceled, then the reinsurance is also canceled, and a record is entered on the Reinsurance Cancelation Journal or Register. This book occupies the same position relative to the Reinsurance Journal that the Cancelation or Return Premium Abstract bears to the Premium Registration Abstract. The Reinsurance Cancelation Journal contains columns showing the credit to premiums, the charge-back for commissions, and the amount due from other companies.

Daily Loss Register

Date 19		Loss No.	Policy No.	Assured	State	Estimated Loss				Amount Paid	Date Paid	Net Outstanding At	Net Outstanding At
						Gross	Prop. Reins.	Reinsuring Company	Net				
				Forward									

FORM XVIII

LOSS REGISTER

Each risk accepted by an insurance company carries with it the probability of loss. When a loss occurs, a report is made by the insured either to the agent who wrote the policy or to the company. An investigation of the loss is conducted, and a record is made at once in a Loss Register

Agency Loss Record

Agency No. State

Claim No.	Date of Loss			Policy No.	Assured	Amount of Policy	Gross Estimate	Net Estimate	Gross Amt. Paid	Rein-surance Collected	Net Amt. Paid	Class	Cause	Date Paid	Name of Reinsuring Company and Amounts	Adjustment Expense	Expenses Recovered	Name of Adjuster
	Mo.	Day	Yr.															
					Forward													

FORM XIX

AGENCY LOSS RECORD

(Form XVIII). This book contains a number of columns showing the policy number, name of assured, estimated loss, estimated proportion to be paid by reinsuring company, actual amount paid, and date of payment. This book is not a book of original entry, but is merely a memorandum record to enable the company to determine the estimated loss liability unpaid at any given time. A recapitulation of losses according to agencies is made in the Agency Loss Record (Form XIX).

Co-Insurance

In connection with the handling of losses by an insurance company, mention should be made of the Eighty Per Cent Co-Insurance Clause in fire insurance policies, found generally on business risks. The clause is stated as follows:

"In consideration of the reduced rate at which this policy is written, it is expressly stipulated and made a condition of this contract that this company shall be liable for no greater proportion of any loss than the amount hereby insured bears to eighty per cent, of the actual cash value of the property described herein at the time when such loss shall happen, nor for more than the proportion which this policy bears to the total insurance thereon; provided, however, that if the aggregate claim for any loss shall not exceed five (5) per cent, of such actual cash value, no special inventory or appraisement of the undamaged property shall be required.

"If this policy be divided into two or more items, the foregoing conditions shall apply to each item separately; and if two or more buildings or their contents be included in a single item, the application of the provision as to special inventory or appraisement shall be limited to each building and its contents."

Thus it is evident that if at the time a loss is suffered by the insured the amount of the insurance is less than 80 per cent of the value of the property covered by the insurance, the insured will be paid such proportion of the

loss as the amount of the insurance bears to 80 per cent of the value.

The functioning of the clause will be made clear by the following illustration: (*a*) If at the time the loss is suffered the insurance in effect equals or exceeds 80 per cent of the value, the clause does not apply. (*b*) If the insurance in effect does not equal 80 per cent of the value, but the loss suffered amounts to 80 per cent or more of the value, the clause does not apply. (*c*) If the amount of the insurance in effect as well as the amount of the loss suffered does not amount to 80 per cent of the value, the insurance company will be liable only for such proportion of the loss as the amount of insurance in effect bears to 80 per cent of the value. Let us assume that the owner of a factory building valued at $250,000 has taken out an insurance policy for $150,000 with the Dependable Insurance Company. The policy contains the Eighty Per Cent Co-Insurance Clause. A loss by fire amounting to $100,000 is suffered by the insured. The Dependable Insurance Company will pay $\frac{150{,}000}{200{,}000}$ of $100,000 or $75,000 to the insured.

General Books

The most important of the general books is the Cash Book. Insurance accounting, like that of a building and loan association, is based upon a proper accounting for cash. The business of an insurance company is so extensive and the volume of work so great that an enormous number of records, reports, and summaries are necessary to afford a proper check in the accounting for cash receipts and disbursements. Daily receipts are so numerous that it is found quite advantageous to use a daily cash book in which the columns are totaled to furnish entries for the General Cash Book. The receipts side of the General Cash Book (Form XX) contains columns for money received from agents, interest on investments, rents received, and reinsurance recovered. The credit side of the cash book

is used in connection with a Voucher or Expense Register (Form XXI) in which all amounts to be paid are minutely classified in order to expedite the postings to the numerous

Cash Receipts										
Date	From whom Received	Amount	Premiums	Interest	Rents			Sundries		
								Account	Folio	Amount
	Forward									

FORM XX

GENERAL CASH BOOK—Receipts Side

"disbursement" accounts listed in the annual report to be submitted to the state.

VOUCHER OR EXPENSE REGISTER														
Date			Name	Amount	Fire Losses	Adjustment Expense	Agents Compnsat'n	Field Expenses		Federal Taxes	Advertising	Sundries		
Day	Year											Account	Folio	Amount
			Forward											

FORM XXI

VOUCHER REGISTER

The ledgers in use comprise a General Ledger and numerous subsidiary ledgers. Subsidiary ledgers are kept

for accounts with agents and for the recording of investments in stocks, bonds, mortgages, and real estate, collateral loans, and expenses.

The Unearned Premium

The Unearned Premium is the most important liability of an insurance company, and like most of the other liabilities does not appear on the ledger unless placed there by means of an adjusting entry at the end of the year. For annual report purposes, the net premiums are entered as "Income." When a premium is received it is in reality a liability in that it represents an advance payment for protection to be given in the future. If a risk is insured for \$10,000 for one year at a premium of \$120, then the \$120 received is a liability at the moment the risk is accepted. At the expiration of 1 month $\frac{1}{12}$ has been earned, leaving a liability of \$110. At the end of 4 months the liability has been reduced to \$80, and at the expiration of 1 year it ceases to exist. The Unearned Premium is, in reality, a deferred credit to operations, which must be kept in order to prevent the payment of excessive dividends and the consequent impairment of capital. The law has taken cognizance of this feature and compels all insurance companies to reserve the Unearned Premium as a liability for the protection of the policyholders.

An accurate calculation of the Unearned Premium on each and every policy issued would be a stupendous task. This task has been simplified by legal provisions stating the reserve to be kept against each class of policy. The calculation is based on the theory that the same amount of business is written each day of the year. If \$365,000 in premiums covering 1-year risks were accepted during the year then theoretically \$1000 could be said to have been received each day during the year. Calculations could be made to determine the amount of each premium earned and the amount unearned. As the average time all policies have been in existence in the above illustration approximates

TABLE SHOWING CALCULATION OF UNEARNED PREMIUM

Kind of Policy	1931				1932				1933			
	Premiums Less Reinsurance	Earned	Fraction Unearned	Unearned to be Reserved	Premiums Less Reinsurance	Earned	Fraction Unearned	Unearned to be Reserved	Premiums Less Reinsurance	Earned	Fraction Unearned	Unearned to be Reserved
1 year...	$50,000	$25,000	$\frac{1}{2}$	$25,000		$25,000						
					$60,000	30,000	$\frac{1}{2}$	$30,000		$30,000		
									$70,000	35,000	$\frac{1}{2}$	$35,000
2 year..	80,000	20,000	$\frac{3}{4}$	60,000		40,000	$\frac{1}{4}$	20,000		20,000		
					90,000	22,500	$\frac{3}{4}$	67,500		45,000	$\frac{1}{4}$	22,500
									100,000	25,000	$\frac{3}{4}$	75,000
3 year...	90,000	15,000	$\frac{5}{6}$	75,000		30,000	$\frac{3}{6}$	45,000		30,000	$\frac{1}{6}$	15,000
					120,000	20,000	$\frac{5}{6}$	100,000		40,000	$\frac{3}{6}$	60,000
									150,000	25,000	$\frac{5}{6}$	125,000
4 year...	40,000	5,000	$\frac{7}{8}$	35,000		10,000	$\frac{5}{8}$	25,000		10,000	$\frac{3}{8}$	15,000
					32,000	4,000	$\frac{7}{8}$	28,000		8,000	$\frac{5}{8}$	20,000
									36,000	4,500	$\frac{7}{8}$	31,500
5 year...	60,000	6,000	$\frac{9}{10}$	54,000		12,000	$\frac{7}{10}$	42,000		12,000	$\frac{5}{10}$	30,000
					80,000	8,000	$\frac{9}{10}$	72,000		16,000	$\frac{7}{10}$	56,000
									70,000	7,000	$\frac{9}{10}$	63,000
	$320,000	$71,000		$249,000	$382,000	$201,500		$429,500	$426,000	$307,500		$548,000

6 months, it is assumed that 50 per cent of premiums received have been earned and 50 per cent unearned. The unearned premium will be considered earned at the close of next year.

Two-year policies are subject to the same procedure. All 2-year policies written this year will be considered as having been in existence 6 months; the premium to be considered earned will be $\frac{6}{24}$ of the amount received. Two-year policies written last year will be in effect during the entire period of the current year; $\frac{12}{24}$ or $\frac{1}{2}$ of premiums on these policies will be considered earned this year. Thus on 2-year policies written last year involving premiums of \$50,000, $\frac{1}{4}$, or \$12,500, would be considered as having been earned last year; $\frac{1}{2}$, or \$25,000, would be considered as earned this year. Next year the balance, \$12,500, would be considered earned. The accompanying table shows the computation of the unearned premiums on fire policies written for varying periods of time.

At the end of any year, an insurance company must calculate the reserve on all policies written during the year and on all policies written in previous years which have been in force during the year. The calculation is made according to the method described. An inspection of the Underwriting and Investment Exhibit will indicate the procedure to be followed in determining premium earnings, losses incurred, underwriting expenses, and surplus analysis and reconcilement.

QUESTIONS AND PROBLEMS

(a) Questions

1. Explain the following terms used in insurance accounting: reinsurance on unpaid claims; non-admitted assets; unearned premiums; net losses paid; disbursements.

2. State briefly what you understand by the terms: non-ledger assets, non-admitted assets, surplus as regards policyholders, net losses paid, and unearned premiums as used in fire insurance accounting.

3. Describe how losses are handled on the books and records of a fire insurance company.

4. What are the outstanding accounting problems of a fire insurance company?

5. Outline the steps in the accounting procedure of a fire insurance company for keeping a check on the business done by each agent. The reports and other records used should be included in your answer.

6. (*a*) Briefly describe the principal books of a fire insurance company.

(*b*) Name the subsidiary records of a fire insurance company.

7. Wherein do the following statements differ:

(*a*) Receipts and disbursements statement.
(*b*) Income and expense statement.
(*c*) Income and disbursement statement.

(b) Problems

1. From the following information for the Federal Fire Insurance Company, prepare a balance sheet as of December 31:

Total of ledger assets	$2,262,754.06
Losses and claims unpaid	98,360.35
Assets not admitted	14,188.42
Unearned premiums	622,090.20
Non-ledger assets	167,231.19
All other liabilities	22,502.19
Capital paid up	1,000,000.00

2. The Swarthmore Fire Insurance Company is required to submit an annual report to the Insurance Commissioner. From the information given below, you are asked to prepare in proper form, as of December 31, the sections of the report which include (*a*) income and disbursements statement, (*b*) balance sheet.

Agents' balances (over three months due, $9,302.32)	$494,497.51
Agents' compensation including brokerage and allowances	305,533.97
Book value of bonds and stock	1,913,678.50
Book value of bonds and stocks over market value	95,433.57
Capital paid up	400,000.00
Cash and deposits	236,735.17
Dividends paid to stockholders (cash)	60,000.00
Estimated amount of taxes hereafter payable	30,000.00
Federal taxes	31,229.53
Field supervisory expense	20,407.51
Gross loss on sale or maturity of bonds and stocks	131,778.06

Gross profit on sale or maturity of bonds	$3,768.20
Gross premiums received	4,448,569.25
Gross decrease by adjustment in book value of bonds and stocks.	2,310.00
Interest and dividends received	99,838.33
Interest accrued on bonds and mortgages	16,153.68
Loss adjustment expense	40,048.12
Losses paid (gross)	1,669,569.92
Losses and claims—unpaid	660,687.12
Mortgage loans	59,500.00
Other expenses paid	41,017.81
Reinsurance and return premiums	2,612,328.10
Reinsurance received on paid losses	743,746.13
Reinsurance recoverable on paid losses	21,609.02
Reinsurance on losses unpaid or resisted	409,696.81
Salaries and fees of directors, officers, and clerks	95,874.31
Salvage on paid losses	34,771.08
Taxes, licenses and fees	41,747.28
Salaries, rents, expenses accrued	472.00
Unearned premiums	1,428,707.80

The following information was obtained from the previous year's report:

Ledger assets, Dec. 31, previous year	$2,425,562.80
Interest on bonds and mortgages due and accrued	17,762.81
Agents' balances over three months due	10,086.11
Book value of bonds and stocks over market value	91,716.75
Losses unpaid	251,201.72
Unearned premiums	1,397,862.21
Underwriting expenses unpaid	31,710.11
Capital paid up	400,000.00
Surplus over all liabilities	260,748.71

Of the expenses paid during the year totaling $575,858.53, $2,462.50 is to be considered as investment expenses and the balance as underwriting expenses.

3. Prepare Underwriting and Investment Exhibit for the Swarthmore Fire Insurance Company according to the requirements of the Insurance Commissioner.

4. The following information was obtained from the Annual Statement of the Helena Fire Insurance Company for the year ended December 31, 1931:

Total ledger assets	$76,384,636.51
Interest and rents due and accrued	590,150.97
Agents' balances and bills receivable not admitted	448,668.76
Underwriting expenses unpaid	2,238,704.59
Unearned premiums	30,171,299.63

Losses and claims unpaid	$7,569,330.00
Capital paid up	10,000,000.00
Surplus over all liabilities	35,733,638.09
Market value of bonds and stocks over book value	9,186,853.59

The following information was obtained from the books and records as of December 31, 1932:

Capital paid up	10,000,000.00
Gross premiums written	46,081,481.93
Reinsurance and return premiums	12,528,316.22
Interest, dividends, and rents received	3,551,917.53
Miscellaneous income including agents' balances previously charged off $1,492.98; gross profit on sale or maturity of stocks and bonds, $363,522.72; marine awards, mixed claims commission, $802,497.44	1,167,513.14
Gross amount paid for losses	17,684,290.54
Salvage and reinsurance on paid losses	3,208,521.05
Agents' compensation, salaries and other expenses (underwriting expenses, $16,529,236.74; investment expenses, $219,966.31)	16,749,203.05
Dividends paid	2,500,000.00
Other disbursements (agents' balances charged off, $22,129.93; gross loss on sale or maturity of bonds, $27,613.55)	49,743.48
Book value of investments	69,633,821.18
Cash	5,489,080.07
Miscellaneous ledger assets (including agents' balances over 3 months due, $193,070.75; bills receivable, past due, taken for premiums, $10,089.97; excess of bills receivable, not past due, taken for risks over the unearned premiums thereon, $20,321.84)	5,759,615.62
Interest and rents due and accrued	509,568.05
Market value of bonds and stocks over book value	8,620,403.20
Losses and claims unpaid	8,652,784.00
Reinsurance on losses and claims unpaid	1,242,883.00
Unearned premiums	29,532,667.79
Underwriting expenses accrued	2,497,413.84

Prepare the annual statement for presentation to the State Insurance Department, including (*a*) income and disbursement statement; (*b*) asset and liability statement; (*c*) underwriting and investment exhibit.

(B) Life Insurance

CHAPTER VIII

ORGANIZATION AND OPERATION

Life and Fire Insurance Compared

Life insurance is similar to fire insurance in many respects and therefore it will be necessary to indicate only the few points wherein they differ. Generally speaking, life insurance is made possible by means of a co-operative association of persons, which in the event of the death of one of the members of the association, agrees to pay to a certain party, designated as the beneficiary, a stipulated amount of money. The hazard in fire insurance is one of uncertainty, for there is no assurance that a property will or will not be destroyed by fire. In life insurance the hazard is one of certainty, for every person is destined to die sooner or later. In other words, the following difference between life and fire insurance is at once apparent; in the case of fire insurance, the premiums guarantee protection in connection with a loss that may occur, namely, loss by fire; in the case of life insurance, the premiums guarantee protection in connection with a loss that must occur, namely, loss by death. Thus life insurance premiums paid by a group accumulate to form a fund, a proportion of which must be returned by the company whenever an insured individual dies. In certain instances, the insured's share of the company's funds is paid to him before his death. While fire insurance requires the payment of the premiums for the duration of the policy in a

lump sum in advance, life insurance calls for the payment of premiums in instalments over a stipulated period.

The term of a fire insurance policy generally is of short duration while that of a life insurance policy is relatively long. In fire insurance the reserve is greatest at the time the policy is taken out while in life insurance the reserve is least at the inception of the policy. As the fire policy increases in age the reserve decreases, while the reserve of the life policy increases as the age of the policy increases.

Another point of difference between fire and life insurance is that the fire policy may be canceled either by the insurer or the insured while the life insurance policy may be canceled only by the insured.

In most states the Department of Insurance, with the Commissioner as head, supervises life insurance companies as well as other kinds of insurance companies, and many of the insurance laws are of general applicability. However, there are sections of the insurance laws in each state that vary with respect to life insurance companies. The following are the more important differences in Pennsylvania:

Purposes for Which Incorporated

Stock or mutual life insurance companies may be incorporated for any or all of the following purposes:

To insure the lives of persons, and every insurance appertaining thereto; to grant and dispose of annuities; and to insure against personal injury, disablement, or death resulting from traveling or general accidents, and against disablement resulting from sickness, and every insurance appertaining thereto.

Capital

The capital of a stock fire insurance company shall be divided into shares of an aggregate value of not less than one hundred thousand dollars.

Stock insurance companies organized to insure lives and to grant and dispose of annuities must have a capital of not less than two hundred thousand dollars.

Stock life insurance companies organized for all of the purposes permitted under the law must have a capital of at least three hundred thousand dollars. Every such company shall, in addition thereto, have a surplus paid in at least equal to fifty per centum of the subscribed capital.

Companies organized to insure lives on the mutual plan must have applications for insurance, to the amount of one million dollars, by not less than four hundred persons. They must also have a guarantee capital, before commencing business, of not less than two hundred thousand dollars.

In the case of mutual life insurance companies, in addition to the certificate required to be sent to the Insurance Commissioner, as soon as the guarantee capital has been subscribed, and fifty per centum thereof has been paid in lawful money to the treasurer and the subscriber's obligations given for the remaining fifty per centum thereof, the president, treasurer, and a majority of the directors, shall, under their respective oaths or affirmations, make a certificate to the Insurance Commissioner stating: (*a*) The number and par value of the shares of guarantee stock in said company; (*b*) the names and residences of the subscribers; (*c*) the number of shares subscribed by each; (*d*) the amount paid in on each share; (*e*) the form of obligations taken for the unpaid money; (*f*) the amount of money in the hands of the treasurer; and (*g*) where the same is deposited.

Investment of Capital and Reserve

A sum equal to the capital and the reserves of any stock or mutual life insurance company organized under the laws of the Commonwealth shall be invested as follows:

(1) In such real estate as it is authorized to hold (similar to provision for fire insurance companies).

(2) In bonds of the United States or District of Columbia, or Canada, or of any State or Territory of the United States, and in farm loan bonds issued by Federal Land Banks.

(3) In legally authorized bonds, notes, warrants, or

obligations of any city, town, county, borough, township, municipality, school district, poor district or water, sewer, drainage, road, or other Government district or division, located in this Commonwealth or in any State of the United States.

(4) In ground-rents and in loans upon unencumbered real estate in any State of the United States or the District of Columbia; Provided, That no loan shall exceed sixty per centum of the fair market value thereof at the time of such loan.

(5) In loans upon the security of its own policies, not exceeding the net value of the policy at the time of making the loan.

(6) In first encumbrances upon standard steam railroads, street or interurban railways, or upon their rolling stock equipment, or of water, gas or other public utility companies; or bonds issued to retire a prior debt, or bonds prior thereto, or in other bonds or notes of the above named corporations, upon which no default in interest exists at the time of purchase. The Insurance Commissioner may permit any company to invest sufficient of its capital and reserves in the securities of a foreign government in order to enable it to comply with the laws of such foreign government and transact business therein.

Investment of Surplus; Restrictions

Any money over and above the capital and reserves of any stock or mutual life insurance company may be invested in the securities enumerated in the preceding section or in the standard and listed stock or other evidence of indebtedness of any solvent dividend-paying corporation created under the laws of this Commonwealth or of any other State of the United States; or loaned upon the pledge of the same, except its own stock or the stock of any other insurance company transacting like classes of business.

The current market value of such securities shall at the time of making any loan be at least twenty per centum more than the sum loaned thereon.

No such insurance company shall invest any of its funds in any unincorporated business or enterprise; nor in the stocks or evidences of indebtedness of any corporation, the owners or holders of which stock or evidence of indebtedness may, in any event, be or become liable on account thereof to any assessment, except for taxes; nor shall any of its funds be loaned on personal security. Not more than one-fifth of its capital shall be invested in a single mortgage. No such company shall hereafter invest or acquire, directly or indirectly, more than ten per centum of the capital stock of any corporation; nor shall more than ten per centum of its capital and surplus be invested in the stock of any corporation. No such company shall enter into any agreement to withhold from sale any of its property, but the disposition of its property shall be at all times within the control of its board of directors or trustees. If any investment or loan is made in a manner not authorized by this act, the officers, directors, and trustees making or authorizing the same shall be personally liable for any loss occasioned thereby.

Impairment of Reserve Liability

No stock or mutual life insurance company, after receiving notice from the Insurance Commissioner that its reserve liability, after all other debts and claims against it, including fifty per centum of its capital, have been deducted, has been impaired, shall issue new policies, under its authority to do business in this Commonwealth, until its funds have become equal to its liabilities, and it has obtained from the Insurance Commissioner a certificate to that effect, with authority to resume business. When a life insurance company organized under the laws of this Commonwealth has been notified to cease doing new business, the Insurance Commissioner may, in case it appears

from his examination that no fraud or gross incompetence or recklessness is shown to exist in the management, permit the officers of the company to continue in charge of its business for one year; and he may renew the permission, if he is satisfied that the company is likely to retrieve its affairs, or he may institute proceedings to determine what further shall be done.

Life Insurance Premiums

It was stated previously that the basis of fire insurance was the operation of the law of averages. In this respect life insurance is similar. The instrument used to determine the operation of this law in respect to life insurance is the mortality table. A mortality table is a mathematical device, resulting from an intensive study of thousands of lives, which shows how many of a group of people of a certain age will die during a year. There are several of these tables in use at the present time. Most life insurance companies in the United States use either the Actuaries' or the American Experience Table. Reference should here be made to the excerpts taken from the American Experience Table (Form XXII). This table, it will be noted, starts with 100,000 lives at age 10 and shows the number living and dying each succeeding year until all have died. Thus it will be seen that 749 will die during the tenth year. The original 100,000 at age 10 will have been reduced through deaths to 81,822 at age 35. At 65 years of age, 49,341 of the original 100,000 will be living, while at age 90 all but 847 will have died. These will die between 90 and 96.

In applying for a policy with a life insurance company an applicant must pass a rigid medical examination. Insurance companies, while interested in the securing of new business, are not sufficiently interested to take every applicant regardless of his physical condition. As practically all life insurance premiums are paid in instalments, any method employed in the selection of policyholders which

AMERICAN EXPERIENCE TABLE OF MORTALITY

Age	Number Living	Number of Deaths	Yearly Probability of Dying	Yearly Probability of Living
10	100,000	749	.007,490	.992,510
11	99,251	746	.007,516	.992,484
12	98,505	743	.007,543	.992,457
13	97,762	740	.007,569	.992,421
14	97,022	737	.007,596	.992,404
15	96,285	735	.007,634	.992,366
25	89,032	718	.008,065	.991,935
26	88,314	718	.008,130	.991,870
27	87,596	718	.008,197	.991,803
28	86,878	718	.008,264	.991,736
29	86,160	719	.008,345	.991,655
30	85,441	720	.008,427	.991,573
35	81,822	732	.008,946	.991,054
36	81,090	737	.009,089	.990,911
37	80,353	742	.009,234	.990,766
38	79,611	749	.009,408	.990,592
39	78,862	756	.009,586	.990,414
40	78,106	765	.009,794	.990,206
50	69,804	962	.013,781	.986,219
51	68,842	1001	.014,541	.985,459
52	67,841	1044	.015,389	.984,611
53	66,797	1091	.016,333	.983,667
54	65,706	1143	.017,396	.982,604
55	64,563	1199	.018,571	.981,429
56	63,364	1260	.019,885	.980,115
57	62,104	1325	.021,335	.978,665
58	60,779	1394	.022,936	.977,064
65	49,341	1980	.040,129	.959,871
66	47,361	2070	.043,707	.956,293
67	45,291	2158	.047,647	,952,353
68	43,133	2243	.052,002	.947,998
69	40,890	2321	.056,762	.943,238
70	38,569	2391	.061,993	.938,007
80	14,474	2091	.144,466	.855,534
81	12,383	1964	.158,605	.841,395
82	10,419	1816	.174,297	.825,703
83	8,603	1648	.191,561	.808,439
84	6,955	1470	.211,359	.788,641
85	5,485	1292	.235,552	.764,448
90	847	385	.454,545	.545,455
94	21	18	.857,143	.142,857
95	3	3	1.000,000	.000,000

FORM XXII

insures on an average a greater life expectancy for each applicant than provided in the mortality table, will result in a greater income through premium receipts. The healthier the applicant the greater the probability of long life. This is the keynote of selection of future policyholders.

An insurance company is a trustee for each policyholder. It agrees to pay a stipulated sum of money to the insured himself, or to his estate, or to a beneficiary. To do so it must accumulate funds. These funds, which are called premiums, are received from policyholders and invested in accordance with state provisions before enumerated.

The premium which must be paid by each person insured depends upon the policy which is requested. Sometimes in addition to protection a person wishes to add a saving feature. Various insurance policies combining saving with protection are known as endowment policies.

In certain cases, if the policyholder desires merely protection, he will pay an amount each year which will represent, first, his contribution toward the payment of losses which will occur during each year according to the mortality table, and, second, an additional amount known as "loading." The latter serves to pay expenses and to provide dividends to stockholders or policyholders. Premiums calculated directly from these factors are known as natural premiums. Under this plan of insurance the premium increases from year to year because owing to the increasing death rate there are fewer contributors. If the insured desires to pay but one sum of money to secure protection, he will pay what is known as a "Net Single Premium," which is the commuted value of all the yearly premiums he would have to pay under the natural premium plan. If he desires to equalize his payments he will pay a rate known as a "level premium" either for life or for a limited period.

A level premium is composed of three distinct elements: first, there is an amount which must be contributed to the general fund to pay current death losses; second, an amount

which must be contributed to the reserve fund to pay future death losses; and third, an amount, generally called "loading," which is added for the purpose of paying expenses and providing a return to the owners of the business.

The determination of premiums to be charged is an actuarial rather than an accounting problem. The age of the insured, assumed interest earnings on premium collections, kind of policy desired, and expectancy for the period the policy is to be in force are the important features considered when calculating premiums.

As an illustration, it is desired to calculate the premium to be charged for $1000 protection for one year at age 25. Reference to the mortality table shows that at age 25, 89,032 persons of the 100,000 shown in the table at age 10 will still be living. Of this number 718 will die during the year. If each one is insured for $1000 the insurance company will have to pay claims totaling $718,000 at the end of the year. (For the purpose of calculating premiums it is always assumed that the premiums are paid at the beginning of the year and death claims paid at the end of the year.) The amount to be collected from the 89,032 persons living at the beginning of the year will be $718,000 discounted for one year at an assumed rate of interest. If the rate assumed is 3 per cent, then the total premiums to be collected to furnish insurance protection for one year will be $718,000 ÷ 1.03 or $697,087.38. The premium to be paid by each one of the 89,032 therefore will be $7.83. This is known as the net natural premium and will provide protection for one year in the amount of $1000. To this premium figure an amount to cover expenses and profit should be added.

The net natural premium increases year by year, since each year there are more deaths and fewer contributors. At age 50 the net natural premium under the above assumptions becomes $13.38; at age 65, $38.96; at age 80, $140.26; at age 90, $441.31; and at age 95 it becomes $970.87. Since at this advanced age there are but 3 survivors out of the

original 100,000 living at age 10, the whole burden will have to be assumed by them.

The level premium plan provides for a redistribution of the cost as it is calculated under the natural premium plan. Under this plan the insured pays an annual premium which does not vary during the life of the policy. During the earlier years, an amount in excess of the actual yearly cost is collected. The excess contributions of the earlier years equalize the insufficient contributions of the later years. As these excess amounts will be used to pay future claims, it is required that this excess together with interest accretions be construed as an unearned premium liability both in the preparation of the annual report and in determining the solvency or insolvency of an insurance company.

Unearned Premium

The unearned premium liability of a life insurance company differs in some respects from the unearned premium liability of a fire insurance company. The reserve of a life insurance company increases year by year in the case of a single policy, while that of a fire insurance company decreases because premiums are as a rule collected in one installment and with the passage of time the amount to be reserved becomes less and less. A life insurance company accumulates its unearned premium liability for the payment of claims which are certain to be made. Again, the assumptions of life insurance premium calculations are more nearly in accord with actual facts, and hence the determination of unearned premium liabilities is mathematically more correct than in the case of fire insurance companies. A fire insurance company, on the other hand, creates a reserve because of the possibility that liabilities which must be met from premium collections of prior years will arise in the future.

CHAPTER IX

LIFE INSURANCE ACCOUNTING

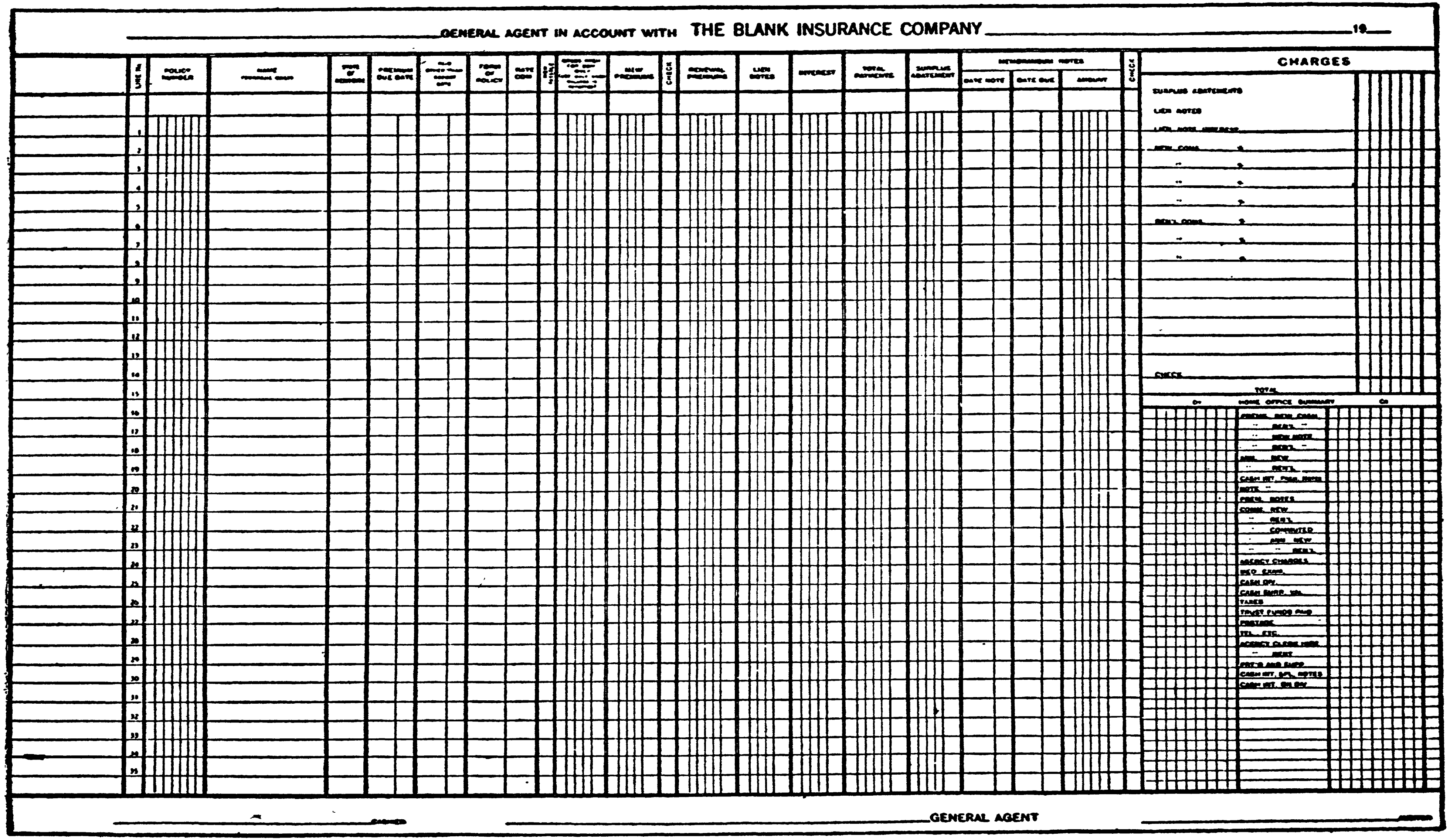
Requirements of the Accounting System

The accounting system of a life insurance company must adapt itself to the requirements of the annual report to be submitted to the insurance departments of the states in which business is written. It must be sufficiently elastic to provide for proper control over the accounts of the agencies since practically all of the premium income originates with them. The insuring of the lives of thousands or hundreds of thousands involves a tremendous amount of detail in connection with the collection of premiums, the proper investing of funds and the collection of interest thereon, the determination of reserves to be kept against all unmatured policies, and the payment of death claims.

The collection, safeguarding, and disbursing of cash constitute the basis of life insurance accounting. The principal books used, therefore, are the General Cash Book and Ledger. The General Cash Book is supported by a number of subsidiary cash books, which in turn are written up from individual reports covering the business of the day. The General Ledger contains the accounts required to assist in the preparation of reports to the states. It is supported by a number of subsidiary ledgers, very often in card form, which give the details of the general ledger accounts.

Cash Receipts

Practically all of the cash received by a life insurance company represents either premium collections or income on investments. About one month before premiums are due from policyholders, premium notices are forwarded to



GENERAL AGENT IN ACCOUNT WITH THE BLANK INSURANCE COMPANY 19

POLICY NUMBER | PREMIUM DUE DATE | FORM OF POLICY | NEW PREMIUMS | CHECK | RENEWAL PREMIUMS | LIEN NOTES | INTEREST | TOTAL PAYMENTS | SURPLUS ABATEMENT | MEMORANDUM NOTES: DATE NOTE, DATE DUE, AMOUNT | CHECK

CHARGES

SURPLUS ABATEMENTS
LIEN NOTES
CHECK
TOTAL

HOME OFFICE SUMMARY

CASH INT.
AGENCY CHARGES
CASH DIV.
TAXES
TRUST FUNDS PAID
TEL. ETC.
CASH INT. SPL. NOTES

GENERAL AGENT

Form XXIII.—AGENCY REPORT

them either directly or through the agency in charge of the territory in which they live, requesting that the remittance be made. At intervals, either daily, weekly, or monthly, each agent renders a report to the home office showing new premiums, renewal premiums, other miscellaneous collections, commissions to which he is entitled on both new and renewal business, and balance of cash on hand. These Agency Reports (Form XXIII) are carefully checked by the

FEB. MAY AUG. NOV.

KIND	NAME	NO.
AMOUNT	ADDRESS	AGENT

PREMIUM			$\frac{1}{2}$ OR $\frac{1}{4}$					AGE				ISSUED			
YEAR	INTEREST	DIV. OR R. A.	NET PREM.	MAY	AUG.	NOV.	FEB.	YEAR	INTEREST	DIV. OR R. A.	NET PREM.	MAY	AUG.	NOV.	FEB.

FORM XXIV

POLICYHOLDERS' LEDGER

home office, and premium collections are posted to the Policyholders' Ledger, which is usually in card form (Form XXIV). Each agency report is entered in total in an Agency Journal or Agency Cash Book (Form XXV). A recapitulation of this Cash Book or Journal is made at least monthly and postings are made to the General Cash Book. The balance of cash owed by each agent as shown by the reports may be remitted direct, or the money may be deposited by the agent in a local bank to the credit of the home office which proceeds to draw upon it as occasion demands. Interest and dividends received on account of investments

	GENERAL AGENCY	DATE	TOTALS		PREMIUMS NEW CASH		PREMIUMS RENEWAL CASH		PREMIUMS NEW NOTE		PREMIUMS RENEWAL NOTE		ANNUITY LIFE NEW	ANNUITY LIFE RENL.	INTEREST CASH ON PREMIUM NOTES		INTEREST NOTE ON PREMIUM NOTES		PREMIUM NOTES	
			DR.	CR.	DR.	CR.	DR.	CR.	DR.	CR.	DR.	CR.	DR.	DR.	DR.	CR.	DR.	CR.	DR.	CR.

COMMISSIONS NEW		COMMISSIONS RENEWAL		COMMUTED COMMISSIONS		COMM. ANN. NEW	COMM. ANN. RENEWAL	AGENCY CHARGES		BILLS RECEIVABLE		MEDICAL EXAMINATIONS		PREMIUM ABATEMENTS		INT. COLL. POLICY LOANS	INT. GENERAL ACCT.	CASH SURRENDER VALUES		TAXES		TRUST FUNDS PAID	
DR.	CR.	DR.	CR.	DR.	CR.	CR.	CR.	DR.	CR.	DR.	CR.	DR.	CR.	DR.	CR.	DR.	DR.	DR.	CR.	DR.	CR.	DR.	CR.

POSTAGE	TELEPHONE TELEGRAMS, ETC.	AGENCY CLERK HIRE		AGENCY RENT	ADVERTISING	PRINTING AND SUPPLIES	OFFICE FURNITURE	PREMS. WAIVED FOR DISABILITY	INT. CASH SPL. PREMIUM NOTES		INTEREST ON DIVIDENDS	AGENTS SALARIES					CASH	AGENTS BALANCE		
CR.	CR.	DR.	CR.	CR.	CR.	CR.	CR.	CR.	DR.	CR.	CR.	CR.					CR.	DR.	CR.	

FORM XXV

AGENCY CASH BOOK

in mortgages, bonds, stocks, etc., are recorded in a subsidiary cash book kept for this purpose. The totals of this cash book are transferred to the General Cash Book.

Cash Disbursements

Each separate class of cash disbursements is recorded in an auxiliary or subsidiary cash book the totals of which are transferred to the General Cash Book. A policyholder often finds it impossible to pay premiums when due or finds that obligations coming due make it necessary to borrow money. Since the premiums paid exceed the cost of insurance there is generally accumulated by the policy a reserve, and after a stipulated period the insurance company will advance to the policyholder upon request an amount not to exceed the surrender value of the policy. Surrender value is a term used to denote the maximum amount that can be borrowed on a policy or that amount which will be paid to the holder in case he surrenders his policy. During the earlier years of the life of the policy it is slightly less than the accumulated reserve, but during the later years the surrender value is equal to the reserve. The recording of the advances or loans made to policyholders is made in a Loans on Policies Cash Book. Repayments of loans are also entered in this book (Form XXVI).

Loans made on collateral security are entered in a special cash book showing the amount of the loan, amount repaid, and collateral received.

Death claims, properly supported by proof of loss, are entered in a Death Claim Register (Form XXVII), and when paid are entered in either the General Cash Book or in a Death Payment Cash Book. The Premium Policy Cards in the auditor's office are stamped with the word "dead" and are filed with the canceled cards. The Policyholders' Ledger Cards, in the comptroller's office, have noted across them, usually in red ink, the date of the settlement of the death claims, together with the amounts paid, and a detailed statement of accumulations, post-mortem divi-

Date	Check No.	Name	Policy No.	Loans Made		Loans Repaid			
				Loans to Policy-holders Dr.	Cash Credit	Cash Debit	Loans to Policy-holders Cr.	Interest Credit	Interest Period
Sept. 1		J. Henderson	2637812	500	500				
Sept. 1		F. Durkin	47822			255	250	5	7/1/19 to 9/1/19
Sept. 1		P. Clarkson	482635			1060	1000	60	7/2/19 to 9/1/19
		Total		500	500	1315	1250	65	

Form XXVI

LOANS ON POLICIES CASH BOOK

Loss Reported	Proof Received	Loss Paid	Policy Number	Name of Insured	Residence	Amount of Insurance

Kind of Policy	Date of Birth	Date of Issue	Date of Death	Duration of Policy	Cause of Death	Occupation	Agent	Age of Insured	Years Paid	Settlement	Reserve	Net Premium Paid

FORM XXVII

DEATH CLAIM REGISTER

dends, and any deductions to be made on account of loans made on the policies.

Disbursements covering expenses incurred in connection with general operations are entered in a General Disbursement Cash Book, columnar in form, which may be supported by an Expense Register.

A record of both receipts and disbursements in connection with the acquisition and sale of bonds, stocks, and mortgages is entered in an Investment Cash Book. This book contains all details of securities sold and income received such as rent and interest (Form XXVIII).

Investment Cash Book

Date 19		Description	Int. Due	Cash Dr.	Cash Cr.	Rents	Int. on Collat. Loans	Int. on Bonds and Div. on Stock	Int. on Mtge. Loans	Sale of Investments	Purchase of Investments
Aug.	1	Penna. R. R. Common	9/1	750			•	750			
		5th Ave.		1200		1200					
		J. Smith, Collateral Loan		25			25				
		F. Watson		60					60		
		Sales Broad St. Mtge.		2000						2000	
				4035		1200	25	750	60	2000	

Form XXVIII

INVESTMENT CASH BOOK

The information contained in the various disbursement cash books may be posted direct or may be transferred in total to a General Cash Book (the headings of which would be similar to the headings in the subsidiary cash books), from which postings are made direct to the general ledger.

It is necessary to note here that supporting subsidiary records, such as petty cash books, salary or payroll books, and dividend registers, are often found among the books and records of an insurance company.

System of Ledgers

The system of ledgers comprises, in addition to a General Ledger, Agency Ledgers, Investment Ledgers, and Policyholders' Ledgers. The balance appearing in the Agency Ledgers will in total agree with the agents' control accounts in the General Ledger. A trial balance is taken from the General Ledger and it, together with subsidiary data, serves as the basis for the preparation of financial statements. The Investment Ledgers set forth the details relative to mortgages, bonds, real estate, and stocks held by the company. They are subsidiary to the corresponding control accounts kept in the General Ledger. Policyholders' Ledgers are kept in card form. The ledger cards are arranged either alphabetically or according to date of issue, and in the latter case are cross-indexed as to name. These cards are in reality an index of outstanding policies.

In the premium collection department, similar cards for each policy holder are arranged according to agencies. Another set of such cards will be found in the actuarial department, classified according to the type of policy issued and the age of the insured. This classification is made to enable the actuarial department to calculate the reserves required to be maintained, and the surrender values on policies.

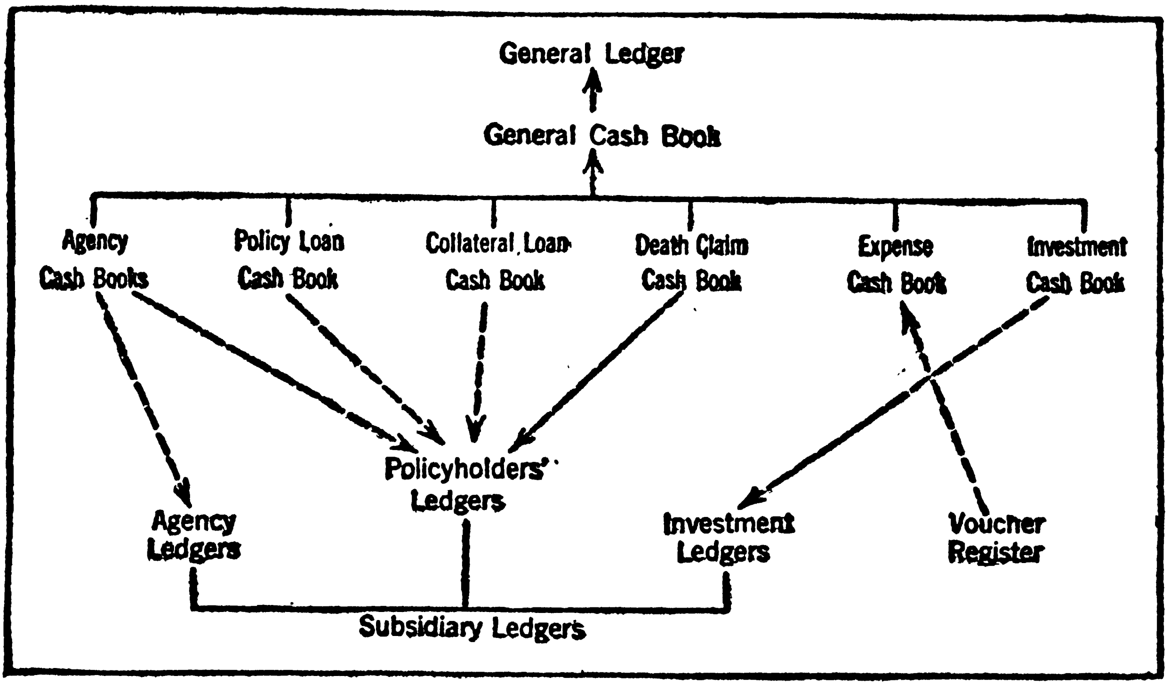
The above description of the accounting system can be more clearly visualized by referring to the accompanying diagram (Form XXIX).

In conclusion, let us trace some typical entries that are made daily in a life insurance company office, by answering the following questions:

(*a*) What entries are made on the books of a life insurance company when its agent receives from H. Farmer, as policyholder, $96.40 cash in payment of a statement rendered as follows:

Date, June 16, 19	
Premium on policy No. 1757 (Ordinary Life).......	$110.32
Dividend for year applied to reduction of premium.	13.92
Net..................................	$96.40

When the check is received by the agent he will make an entry in his office cash book and deposit the check. The agent will next report the transaction on the Agency Report (Form XXIII). This Agency Report will be sent to the Home Office. The amount of $88.13, which is due the Home Office, i.e., $96.40 less $7\frac{1}{2}$ per cent commission, is forwarded as a part of the regular remittance to the Home Office. Remittances may be required daily, weekly, or monthly by the Home Office. The Agency Report is audited



FORM XXIX

DIAGRAM SHOWING MAIN BOOKS OF A LIFE INSURANCE COMPANY

by the Home Office; in the lower right-hand section of this report, headed Home Office Summary, the necessary summary is made. Entries are made in the Agency Cash Book or Journal (Form XXV). A separate sheet is kept for each agent's account. The entry resolves itself into a debit to the agent for Premium Renewal Cash, $110.32, and credits to the agent for Commission Renewal, $8.27, for Surplus (cash dividends) $13.92, and for Cash (reported as paid) $88.13. At the end of the month, through a summary, these items are posted to the General Ledger as:

Commission renewals............	$8.27	
Surplus (cash dividends)........	13.92	
Renewal premiums.........		$110.32

(It will be noted that the difference between the debits and credits represents the cash which has been posted daily.)

(*b*) What entries are made on the books of a life insurance company when it receives a check for $110.32 on policy in question (*a*) above, if the insured chooses to have the dividend of $13.92 applied to the purchase of a paid-up addition to his policy?

Under such circumstances the insured is given a receipt showing that the gross premium of $110.32 has been paid and that the dividend of $13.92 has been used for accumulation under the designated plan. The entries in Form XXIII and Form XXV will be similar to those described under question (*a*) except that no reference will be made to Surplus Abatement.

QUESTIONS AND PROBLEMS

(a) Questions

1. Distinguish between life insurance and fire insurance with regard to:

(*a*) Time limit of insurance.
(*b*) Hazard involved.
(*c*) Premium payment.
(*d*) Cancelation.
(*e*) Reserve.

2. What are the requirements of the accounting system of a life insurance company?

3. (*a*) Name the books of a life insurance company, classifying them into books of original entry and books of final record.

(*b*) Contrast the reserves (unearned premium liabilities) of fire and life insurance companies.

4. Name four subsidiary cash books kept by a life insurance company. Into what subsidiary ledgers would the details of each of these cash books be posted? What accounts in the general ledger would control these ledgers?

5. Explain the procedure involved in the accounting for death claims in life insurance.

6. What are the major accounting problems of a life insurance company?

7. What is meant by an investment and underwriting exhibit? From what sources are the data for its preparation secured?

(b) **Problems**

1. The following information was taken from the books and records of the Cosmopolitan Life Insurance Company, on December 31:

Receipts: Interest on deposits $2,975.26; interest on bonds $13,654.04; interest on premium notes, policy loans, or liens $90.74; interest from other sources $14.70; gross premiums $194,468.56.

Disbursements: Death claims $35,619.70; commissions to agents, first year's premiums $50,196.26; legal expenses $1600; insurance department licenses and fees $3,493.90; rent $3,944.16; compensation of managers and agents for obtaining new business (not commission) $15,053.90; federal taxes $3528.40; state taxes on premiums $2287.18; furniture, fixtures, and safes $620; miscellaneous expenses $1801.98; traveling expenses $1,805.54; advertising $7133.64; salaries of officers, directors, and home office employees $54,913.66; medical examiner's fees $4652.

Ledger Assets: Loans on policies $1512.30; cash in company's office $120; book and amortized value of bonds $320,891.34; deposits in trust companies and banks on interest $108,046.02.

The net uncollected and deferred premiums amounted to $612.80; interest due and accrued on bonds $5786.56; premiums paid in advance, including surrender value so applied $42,320.18; medical examiner's fees, due or accrued $615.50; legal fees, due or accrued $400; commissions to agents, due or accrued $377.84; estimated taxes hereafter payable $8000; claims for losses in process of adjustment or adjusted and not due $6228; reserve for death losses incurred but unreported $2000. The net present value of all policies paid for and in force on December 31, computed on the American Experience Table at 3 per cent, totaled $25,148.10.

During the year there was a gross increase, by adjustment, in the book value of bonds of $259.80 for accrual of discount. There was also a gross decrease, by adjustment, in the book value of bonds of $20.46 for amortization of premiums.

The paid-up capital of the company is $200,000. The net ledger assets on December 31 last year, aggregated $405,777.34.

Prepare the statement of income and disbursements and balance sheet required of all life insurance companies as part of the annual report to the Insurance Commissioner of the state.

2. The Perpetual Life Insurance Company presents you with the information given below. You are requested to prepare the annual report to be submitted to the Insurance Commissioner, as of December 31.

Trial Balance—December 31

Capital stock, paid in cash		$200,000.00
Surplus		100,000.00
Book value of real estate	$20,000.00	
Book value of bonds	288,000.00	
Premiums		97,077.19
Claims paid	25,734.40	
Premiums returned	398.82	
Medical examiners' fees	45.50	
Dividends paid	3,000.00	
Legal expenses	100.00	
Mortgage loans on real estate	10,700.00	
Agents' commissions	18,272.68	
Interest on borrowed money	250.00	
Interest on mortgage loans		545.40
Interest on bonds		10,420.00
Insurance department licenses and fees	20.00	
Salaries and expenses of agents	33,599.16	
Salaries of officers and employees	11,035.00	
Postage, telephone and telegraph	5,366.99	
Rents	335.00	
Repairs and expenses on real estate	1,240.89	
Borrowed money		5,000.00
Interest on deposits		78.57
State tax on capital stock	236.00	
Cash	4,948.00	
Rents received		1,319.75
State tax on premiums	697.64	
Printing and stationery	1,719.72	
Net value of policies outstanding, Dec. 31, last year, American Experience Table, @ 3½%		16,258.89
Borrowed money repaid	5,000.00	
	$430,699.80	$430,699.80

The following information does not appear on the books as of the close of the year:

Interest due and accrued on mortgages	$195.25
Interest accrued on bonds	2154.82
Premiums in course of collection	4786.21
Furniture and fixtures	3200.00
Stationery and printing	300.00
Rents due and accrued	195.00
Claims for losses in process of adjustment	100.00
Reserve for state taxes	494.45

The reserve on all policies outstanding at the end of the year according to the American Experience Table at 3½% is $23,359.89.

The board of directors has authorized a reduction of $2000 in the value of the real estate, so that it shall be carried at a net figure of $18,000.

The net ledger assets, December 31 last year, totaled $321,258.89.

PART III

BANKS

CHAPTER X

BANK FUNCTIONS AND ORGANIZATION

Types of Banking Institutions

Banking institutions represent a type of business which illustrates a further development, from an accounting standpoint, of the use of the cash book. But it must not be surmised that the chief value of a bank is to receive and to disburse cash. Its credit function is far more important; it often has been stated that the real function of a bank is to convert individual credit into bank credit.

In general, there are two types of banks, distinguished by the conditions under which deposits are received.[1] The first comprises those banks which receive from the public deposits which are subject to withdrawal on demand; the second comprises those from which the deposits can be withdrawn only after a stated period of time. The latter type is enabled to invest the funds received in securities less liquid in character but yielding a higher interest rate than investments which can be made by banks of the first

[1] Severe competitive conditions have influenced the trend of banking in the United States in recent years to such an extent that the functions no longer serve to sharply define the type of the bank. There has been a gradual encroachment, by commercial banks, upon the business of the strictly savings institutions, and trust companies have enlarged the scope of their activities to include those of both the commercial and savings organizations until this pronounced trend has nearly obliterated the line of demarcation that once existed between the different kinds of banks.

type. We shall limit ourselves to a discussion of the first type of institution inasmuch as this will serve to form a satisfactory background for general bank accounting. Under this classification are found commercial banks and commercial banking departments of trust companies. The other type, which will not be discussed in these chapters, includes savings banks, savings and trust departments of trust companies, and mortgage loan banks. Referring to the commercial banks, we find national banks, state banks, and private banks as the outstanding examples. We shall use the national bank as the basis for our study.

Functions of a Bank

It will be well to inquire into the functions of a commercial bank in order that we may have the proper foundation for the discussion of the departments comprising the bank, and in turn for the accounting system essential to the operation of these departments. The functions of loaning and discounting, receiving deposits, and furnishing a medium of exchange may be said to be paramount in connection with the operation of such a bank.

It is quite obvious that subscriptions to capital stock provide the initial funds for the bank's operations. After the subscriptions to the capital stock of a bank have been paid it is possible to secure deposits from outsiders, for the public generally is quite willing to offer its capital when it learns that the stockholders of the bank have raised an amount of money sufficient for operation.

Loaning and Discounting

One of the first duties devolving upon the officers of the bank is to put its funds into operation. The obvious channel for the carrying out of this duty lies in the making of loans; in other words, the lending of money to desirable persons is one of the primary sources of profit to the bank. Let us see how this function operates. A manufacturer of toys is obliged to purchase material for manufacture and

to pay wages during the entire year. As the goods are finished, they are placed in the stock room pending the receipt of orders for their sale. The bulk of the sales are made during the months of November and December. Consequently little money will be forthcoming from the sales until December or later. Consequently the business must procure sufficient working capital for the period to manufacture toys for the stock room pending their sale. One of the best ways for the manufacturer to secure the needed funds is by means of loans from banks. In all probability loans will be made on the basis of sixty days and the discount principle will be applied. Let us assume that a first loan of $10,000 is made at the Freeport National Bank. The manufacturer may draw up a sixty-day promissory note and present it to the bank for discount. If the directors and officers of the bank approve the loan, credit will be given for the face value of the note less 6 per cent for sixty days. On this basis the toy manufacturer will be credited with $9900 in return for the note. The bank in discounting commercial paper actually buys a right to call for the face value of the note on the day of maturity. In discounting, interest is received by the bank in advance. The discount principle, however, is not usually applied to long-time transactions. Loans which do not involve the discounting of a note may cover any period of time and call for the payment of principal plus interest at the due date of the loan. Some form of collateral is usually required as security for a loan.

Receiving of Deposits

It was mentioned previously that, in addition to the capital investment, deposits may be received from the public. These funds from the public as well as those from the stockholders are employed for making loans, discount, investments, etc. Although a depositor often places money in a bank for safety, it may be said that the safeguarding of the funds deposited is not the fundamental basis on which a bank receives such a deposit. The bank considers itself

a debtor to the depositor, but it has the privilege of using the funds in its general banking business, with the understanding that they are to be paid back under certain prearranged conditions. Banking experience proves that the depositor rarely demands all of the money that he has on deposit at any given time, but draws upon the account from time to time through the use of checks. As a result the bank is obliged to have on hand in actual cash only a portion of the total amount on deposit. It may be said that by far the greater part of the work done by a bank arises from the receiving of deposits, yet this function affords very little profit.

Supplying of Medium of Exchange

The drawing of checks by depositors is a procedure well known to the public. The checking function has become one of the most popular in connection with the operating of a bank. It affords a very satisfactory method of transmitting funds from person to person. It is a method much to be preferred to the actual transfer of cash.

Organization of a National Bank

In order to secure a charter for the operation of a national bank, it is necessary to notify the Comptroller of the Currency of the intention of the organizers of the bank, and in the petition for a charter a statement of the name, location, and capital of the bank should be given. A minimum of $50,000 is required for banks in sections of the country with a maximum population of 6000; a minimum of $100,000 in sections with a maximum of 50,000 persons; and $200,000 capital is required in cities with a population exceeding 50,000.[1] After the Comptroller of the Currency has in-

[1] Except that in the outlying districts of such a city where the state laws permit the organization of state banks with a capital of $100,000 or less, national banking associations now organized or hereafter organized may, with the approval of the Comptroller of the Currency, have a capital of not less than $100,000.

quired into the character and experience of the organizers and of the contemplated officers, he next considers the need for an additional bank in the community. He also analyzes the general outlook for the banking business in that section and its environs. A further investigation is made by him through the Federal Reserve Bank of the district, and through the officers of the department of banking in the state. Should the petition be considered satisfactory, the Comptroller will request the organizers to fill out and execute other necessary papers. Obviously the amount of money subscribed to the capital stock, the portion collected, and the amount on hand must be noted. Upon the procurement of the consent of the Comptroller to organize, a subscription blank, stating the names and addresses, the financial holdings, and the shares subscribed to by each person, must be signed by each subscriber. This subscription blank should call for the payment of at least 50 per cent in cash and the balance in five monthly instalments. Invariably the shares of stock are sold at a premium, thereby providing a surplus for the bank. The building up of a surplus at the time of organization is a fortification against a reduction of capital because of expenses for salaries and other items during the early period of the bank's existence. When the preliminary steps have been concluded, the officers are required to submit a sworn statement that all legal requirements have been complied with, to the Comptroller. The Comptroller then will issue a certificate permitting the bank to commence business. The bank, in turn, must present this certificate to the public by publishing it in recognized papers for a period of at least sixty days.

Election and Qualifications of Directors

The national banking law provides: "The affairs of each association shall be managed by not less than five directors, who shall be elected by the shareholders at a meeting to be held at any time before the association is authorized by

the Comptroller of the Currency to commence the business of banking; and afterward at meetings to be held on such day in January of each year as is specified therefor in the articles of association. The directors shall hold office for one year, and until their successors are elected and have qualified.

"Every director must, during his whole term of service, be a citizen of the United States, and at least three-fourths of the directors must have resided in the state, territory, or district in which the association is located, for at least one year immediately preceding their election, and must be residents therein during their continuance in office. . . .

"Each director, when appointed or elected, shall take an oath that he will, so far as the duty devolves on him, diligently and honestly administer the affairs of such association, and will not knowingly violate, or willingly permit to be violated, any of the provisions of this title. . . . The oath, subscribed by the director making it, and certified by the notary public or other officer before whom it is taken, shall be immediately transmitted to the Comptroller of the Currency, and shall be filed and preserved in his office for a period of ten years."

The selection of directors should be wisely made, for those officers are expected to pass upon all the important business of the bank. Even though directors confer considerable authority upon the president, vice-president, and cashier, they, nevertheless, are accountable before the law for acts committed by employees of the bank. Moreover, officers are elected by the board of directors.

Officers and Their Duties

The president is the presiding officer at the meetings of the board of directors. It is not always absolutely essential that he act in this capacity, for in some cases a chairman of the board is chosen to preside. Ordinarily the president is the one who passes upon every rule made by the

bank. The vice-president co-operates with the president in the conduct of the business of the bank, and in turn usually has delegated to him the control of particular functions. Large banks, of course, have several vice-presidents, each in charge of a particular phase of the business. The cashier, or officer next in rank to the vice-president, is the business manager of the bank. He is in constant touch with the details of operation and is in a position to check the clerks and tellers. The funds and other holdings of the bank are usually entrusted to his care. Cashier's checks, bank drafts, and vouchers ordinarily must contain his signature. If the size of the bank warrants it, one or more assistant cashiers are elected to aid him in his work. Following him, come the heads of the various departments. Next to these are the tellers, and, finally, the clerks.

Within recent years the position of comptroller or auditor has become one of the more important positions in the larger banks. The comptroller or auditor reports directly to the president or to the board of directors. His chief duties consist in making unannounced audits of the activities or records of the various departments, devising improvements in the methods of recording bank transactions, and in preparing departmental reports, reserve requirements and financial and operating statements.

Departments of a Bank

It will be well now to consider the departments of a bank and to trace logically the various functions performed by each. In a manufacturing establishment it is highly desirable that the owner delegate definite responsibilities to specific persons, thereby departmentalizing the business. Thus we find purchasing, manufacturing, selling, accounting, and administrative departments, which, though apparently separate units, are so correlated as to function as a unified whole. In this respect a bank does not differ from a manufacturing business, for the enormous detail involved

in transacting the business of a bank necessitates the delegating of responsibility. This in turn leads to the creation of departments.

The main departments are as follows:

(*a*) Receiving.
(*b*) Paying.
(*c*) Bookkeeping.
(*d*) Loan.
(*e*) Investments.

Other departments, subsidiary in nature, are often found. These include:

(*a*) Clearing.
(*b*) Transit.
(*c*) Exchange.
(*d*) Collection.
(*e*) Analysis.
(*f*) Safe deposit.

The receiving department is primarily interested in receiving deposits. Sometimes it takes charge of incoming mail. The paying department's main duty consists in paying to depositors funds which they desire to withdraw. The bookkeeping department records all business transactions. The loan department extends bank credit to responsible parties. The investment department is charged with the duty of investing the bank's funds in securities permitted under the law. The work of these and the subsidiary departments mentioned will be discussed in detail in the next chapter.

CHAPTER XI

OPERATION AND RECORDS

THE information contained in the preceding chapter is necessary for an intelligent understanding of the accounting system of a bank. Among other things was mentioned the need for proper departmentalization to enable the employees to perform efficiently the work to be done. The functions of these departments may be classified as follows:

(1) Receipt of deposits by the receiving department.
(2) Disbursement of deposits by the paying department.
(3) Accounting for deposits by the bookkeeping department.
(4) Utilization of deposits by the loan or investment departments.
(5) Miscellaneous, such as clearing, transit, exchange, etc., by subsidiary departments.

It can thus be seen that in order to carry out the principal business for which a bank organizes, i.e., conversion of individual credit into bank credit, it is necessary to attract individual credit, to provide for the return of individual credit upon demand, and to employ the utmost care in the handling of individual credit by lending it to desirable risks only or by investing it in carefully selected securities. What records are kept showing that the aforementioned duties are being carried out properly? A study of the records of each department will answer the question for us.

Receipt of Deposits

The work of receiving and accounting for deposits is performed by the following departments:

(1) Receiving department.
(2) Clearing department.
(3) Transit department.

The greater portion of a bank's receipts consist of deposits received either by the receiving department or the incoming mail department. Each deposit is accompanied by a deposit slip, if received direct, or a remittance letter explaining the nature of the contents if received through the mail. In many instances these remittance letters are turned over by the incoming mail department to the receiving department.

Upon receiving a deposit, the receiving clerk, or teller, immediately checks the deposit with the items listed upon the deposit slip. If correct, acknowledgment of the deposit is made in a bank book furnished to the depositor. These deposits include currency, checks, drafts, coupons, and any other items payable on demand. It may be well to mention the different types of checks received, inasmuch as they give rise to different procedure in their collection. In the first place may be received checks which are drawn on the bank of the depositor; second, checks drawn upon other banks which are members of the clearing house, or upon banks which, although not members of the clearing house, are permitted to clear through banks which are members; third, checks upon banks which do not clear through the clearing house, and therefore must be collected direct; fourth, checks upon banks in other towns and cities; and last, cashier's checks and certified checks drawn on the bank of the depositor. All the items received must be proved. The proof of the work may be made in the receiving teller's department at the end of the day or at intervals during the day to be summarized at the end. The teller's assistant classifies the checks received into the five groups mentioned, and determines the amount of each group. It is preferable that, from time to time, a batch of checks received up to a given period of the day be proved. The cash on hand in the receiving teller's cage, plus the checks that

have been listed, should equal the totals of the deposit slips. Upon the proving of these amounts, the deposit slips are transferred to the bookkeeping department for entry in the Individual Depositors' Ledger. Should there be a discrepancy in these totals, the error must be located before the checks and depositors' slips are removed from the receiving teller's cage. The proving of checks and deposit slips in batches is thus of great help in that errors can be confined to definite portions of the work of the receiving teller each day. Likewise it facilitates the work of the bookkeeping department, inasmuch as the work of this department is not held up a whole day owing to the inability of the teller to locate a mistake in a certain portion of his work. Finally, the teller verifies the proofs of the several batches. If these tally satisfactorily a proof sheet is written up by the receiving teller. If the work of the receiving department is exceptionally heavy, the proving of the items received, as contrasted with the deposit liability incurred, may be delegated to a subsidiary department called the proof department, which does the work as outlined above.

The Proof Sheet or Settlement (Form XXX), made out at the end of the day by the receiving department, shows what has been received and the disposition of the receipts. It may be said at this point that not only the receiving department, but all departments, prepare these daily settlements, which may be used as the basis for controlling entries made in the general books. The receiving department, like all other departments, charges itself for that which it has received and credits itself for the items turned over to other departments. The receiving teller accordingly charges himself for all deposits received, for money handed over to him by the other tellers, and for any other receipts which may have come into his possession during the day. He credits himself for all checks on his bank turned over to the bookkeeping department, exchanges for the clearing house turned over to the clearing department, other collections to be made in the city turned over to the runners, checks payable

RECEIVING TELLER'S SETTLEMENT OR PROOF

Receiving Teller's Proof.................... 19....

Dr.					Cr.
Cash	Clearing House	Out of Town	General Ledger	Individual Ledger	Individual Deposits

Proof

	Dr.	Cr.
Cash		
Individual Ledger		
General Ledger		
Out of Town		
Clearing House		
Individual Deposits		
Total		

Form XXX

TELLER'S PROOF

out of town turned over to the transit department, and cash on hand. The receiving teller is not the custodian of the bank's funds, and after his settlement is made all cash in his possession is transferred to the paying or first teller.

The checks on the bank of the depositor, turned over to the bookkeepers in charge of the individual depositors' ledger, are entered as debits to the accounts of the parties who drew the checks. The checks for the clearing house are sorted by banks, and a list is made of the checks on each bank. The totals of the amounts for each bank are proved against the total checks sent by the receiving teller for collection through the clearing house. To these checks are added remittances that come in the mail from correspondent banks, and the entire group of checks is sent to the clearing house. Accuracy on the part of each bank is absolutely essential in the conduct of business with the clearing house, for a fine may be imposed on the offending bank for every error that is discovered by clearing-house clerks.

The sight-collection items, such as notes and demand drafts, not collectible through the clearing house, are collected by messengers of the collection department. The transit department collects checks drawn on out-of-town banks, through correspondent banks or through the Federal Reserve System.

From the foregoing it will be seen that the important work of the receiving teller consists of accurately proving the deposit tickets with the items received and of classifying the checks and other funds before they are transferred to other departments.

Disbursement of Deposits

It may be said that the receiving teller does business only with the depositors of the bank, but a similar statement could not be made of the paying teller, for he is obliged to deal with many persons who are not connected

with the bank. He must be exceedingly accurate, for after he has paid out money it is almost impossible to remedy errors. It naturally follows that the position of paying teller is regarded as one of more responsibility than that of receiving teller. In cashing a check the paying teller must determine the validity of the check, whether or not the drawer has a sufficient balance to meet this check, and whether the person presenting the check is the proper payee. After the paying teller cashes a check for a person, an entry is made on a check scratcher. Before leaving, each day, he is obliged to check off and prove all his work. The proof, or settlement, shows the cash on hand at the beginning of the day, the amounts received from other tellers, and any amounts that may be received from the clearing house owing to a credit balance. Likewise it will set forth the total of depositors' checks cashed during the day, together with any amounts paid out to cover cashier's checks presented, amounts paid to cover checks of other banks cashed by the bank's own depositors, and also any amount that he may have been called upon to pay the clearing house, because of a debit balance. These receipts and payments, thus summarized in settlement form, show that the money received, plus the money on hand at the beginning of the day, minus the money paid out, equals the balance on hand. This balance in turn is classified so as to show the different kinds of money on hand. Any discrepancy is carried to an over-and-short account, or a tellers' difference account. Minor duties of the paying teller consist in making currency shipments, supervising the preparation of payroll envelopes for large corporations who are depositors of the bank, and making payment for the bank's current expenses. The paying teller at the end of the day disposes of all items in his possession except cash. These items, generally checks, find their way to the bookkeeping, collection, clearing, and transit departments.

It must not be taken for granted that it is absolutely essential to have separate receiving and paying tellers, for

some of the banks require all tellers both to pay and to receive. Under this plan, however, the preparation of settlement statements is more difficult. When errors do occur it is necessary under this plan of operation to trace them to either the receiving or to the paying operations. Paying and receiving result in constant changes in the bank's assets and liabilities, and the utmost care must be exercised to avoid errors.

Accounting for Deposits

The term deposits is one which is used very frequently by a bank. It may have reference to cash and checks given to the receiving teller by a depositor. Again the word may be used in lieu of the phrase "accounts of depositors." Let us now investigate the method of keeping these accounts.

This work is performed by a special set of clerks representing a department known as the Individual Bookkeeping Department. Depositors are given credit for deposits made or for proceeds of loans granted by the bank as per credit slips. Interest is credited to the accounts from time to time. Depositors are charged for checks drawn against their own account which may have been cashed or which may have been deposited by other depositors. They are also charged for checks drawn against their account and received either by mail or through the clearing house. These accounts are carried in subsidiary ledgers, postings being made through the medium of bookkeeping machines.

Since the number of depositors' accounts of the average bank may total several thousand, the need for control can be seen immediately. The subsidiary ledgers are controlled by one or more control depositors' accounts appearing in the general ledger. The tellers advise the general ledger bookkeeper of the totals of the items which have been turned over to the Individual Bookkeeping Department. This advice usually takes the form of tickets or may be taken directly from the tellers' proof sheets. The general

ledger bookkeeper then makes his entries in the cash book or general journal and secures confirmation of the totals debited or credited to the depositors' control account by requesting the Individual Bookkeeping Department to furnish the totals of the debits and credits from all sources posted to the individual depositors' accounts.

Mr. Albert Markham
1807 E. Eighth St.
Woodledge, Wis.
In account with
FIRST TRUST COMPANY
May—19—

The LAST *Printed* amount in this column is your balance at the close of this month.

Date	Checks Listed in the Order of Payment. Read across	Deposits	Date	Daily Balance
	Balance Forward		Apr. 30	$1962.51
May 1	$12.00		May 1	1950.51
May 8	$25.00—$16.00—$59.00		May 8	1850.51
May 15		200.00	May 15	2050.51
May 18	$17.00—$10.00		May 18	2023.51
May 25		14.61	May 25	2038.12
May 31	$2.00—$8.00—$20.00		May 31	2008.12

FORM XXXI
INDIVIDUAL DEPOSITOR'S LEDGER ACCOUNT

Utilization of Deposits

The expenses, including interest allowed depositors, involved in operating a bank are exceptionally heavy.

Expenses are paid, not out of capital, but out of gross earnings. Interest and discount, and exchange and collection charges, are the principal sources of income. Other sources of income arise through the operation of the trust department and from realized profits on securities sold. A large portion of the profit of a bank is derived primarily through loaning funds or discounting commercial paper. Since depositors may request banks to return funds deposited, the banks are required legally to maintain reserves. Thus, members of the Federal Reserve System must maintain on deposit, as a reserve, with the Federal Reserve Bank of the district in which they are located, certain percentages of their deposits. For many years these reserves were calculated upon the basis of at least 3 per cent of time deposits and, in addition, from 7 per cent to 13 per cent of demand deposits. Country banks were required to keep a reserve of 7 per cent against demand deposits, reserve city banks 10 per cent, and central reserve city banks 13 per cent. The governors of the Federal Reserve System determine, by regulation, how deposits are to be classified and what deposits are subject to reserve requirements. The Banking Act of 1935 amended section 19 of the Federal Reserve Act relating to reserves by granting to the Board of Governors the power to regulate reserves required in order to prevent injurious credit expansion or contraction. Reserves by regulation may not be decreased below the percentages shown above but may be increased against time deposits or demand deposits or both. Under the present laws the reserve requirements may be established at any point provided they do not fall below 3 per cent of time deposits and 7–13 per cent of demand deposits and provided further that they are no more than double the above figures.[1] State banks, nonmembers of the Federal Reserve System, must comply with

[1] Reserve requirements effective May 1, 1937: 6 per cent against time deposits and 14 per cent to 26 per cent against demand deposits, depending upon the classification of the member as either country, reserve city, or central reserve city bank.

the reserve requirements established by the laws of the state or commonwealth under whose jurisdiction they operate.

To illustrate the operation of the loaning function, assume that a bank receives $100,000 in currency from some depositors, and that this amount is immediately redeposited with the Federal Reserve Bank. Eliminating other items from the balance sheet, the following statement results:

Assets		Liabilities	
Federal Reserve Bank (Reserve)	$100,000	Deposits............	$100,000

The reserve percentage is 100. If loans properly supported and authorized were granted to the extent of $200,000, deposits would be credited and loans and discount debited. The balance sheet would now show the following:

Assets		Liabilities	
Federal Reserve Bank (Reserve)	$100,000	Deposits............	$300,000
Loans and Discount...........	200,000		
	$300,000		$300,000

The reserve percentage is now $33\frac{1}{3}$. However, the individuals who have arranged for bank credit will proceed to draw checks against their accounts. These checks, which must be paid, will result in a reduction of the reserve, for the bank establishing the credit will have to secure currency to pay the checks presented, or other banks, possibly members of the clearing house, will honor the checks with the expectation of being reimbursed. The reserve ratio in the above case would be seriously reduced if the checks drawn were not offset to a large extent by new deposits.

Conservative management imposes limitations upon the loans and investments. They should not exceed the deposits, and usually they are maintained at a lower level. A very old theory of banking holds that loans and investments should contract in direct ratio to the shrinkage in deposits. To effect this, considerable stress must be placed on the liquidity of these assets. To expand deposits through the medium of unrestrained extension of credit invites cer-

tain disaster. The expectancy of withdrawal of deposits arising from loans made by the institution is much greater than the average withdrawals under normal conditions of deposits derived from the business affairs of the depositor.

To exemplify the effect of this unsound practice, let us assume that we have

Assets		Liabilities	
Federal Reserve Bank (Reserve)	$100,000	Deposits	$100,000

and loans were granted to the extent of $700,000, deposits being credited with a like amount. The reserve would be reduced to 12½ per cent. The balance sheet would then show:

Assets		Liabilities	
Federal Reserve Bank (Reserve)	$100,000	Deposits	$800,000
Loans and Discounts	700,000		
	$800,000		$800,000

In actual operation, it would not be unusual to experience an immediate withdrawal of the deposits, as a result of the loans made by the institution, to the extent of approximately 70 per cent. This result would not only absorb the reserve bank balance but would also necessitate the bank's borrowing heavily to meet these withdrawals. It would pay the prevailing rate for its borrowed money, seriously impairing its earnings, and financially it would be in an over-extended condition.

It is clear from the above that the deposits act as a control over the loans and discounts. When the reserve ratio drops below the minimum, the bank must deposit with the Federal Reserve Bank additional funds obtained from current deposits, or by drawing on correspondents or other banks acting as a depository, or by rediscounting commercial paper held as collateral for loans.

Recording a Loan

Let us examine the process of recording a loan. A business man in need of funds calls upon his banker and requests

Discount Register													
When Discounted	No.	Maker	Endorser	For Whom Discounted		Where Payable	Date of Note	Time	When Due	Amount	Discount	Proceeds	Remarks
Totals Forwarded													

FORM XXXII

DISCOUNT REGISTER

a loan for a period of two months. If his statements of financial worth and of earnings and expenses are satisfactory, or if the security pledged is deemed sufficient, the officers authorized to pass upon loans approve the loan and notify the loan clerk. A note for the full amount of the loan is made out and signed by the merchant or business man. A record of the transaction is made in a book called Loans and Discounts Authorized, or Loans and Discount Register (Form XXXII). This book, columnar in form, contains a complete record of each note discounted and

MATURITY REGISTER

Notes Due September 8, 19—

Number	Maker	Endorser	Where Payable	Amount		Remarks
			Total			

FORM XXXIII

DISCOUNT TICKLER

each loan authorized, showing its number, date, maker, amount, time, due date, interest rate, where payable, discount charges, and net proceeds to be credited to the borrower's account. This register records notes in the order of their acquisition. At the close of business each day, the loan department informs the general ledger bookkeeper of the face value of notes discounted and loans authorized. This information is the basis of an entry charging Loans and Discounts and crediting Individual Depositors. In the meantime, the individual bookkeeping department has been apprised, by a deposit ticket made out by the loan clerk, of the amount to be credited to the deposit account of each borrower. It can thus be seen that the Loans and Discount Register is the basis for the general cash book entry as well as for the individual credits in the subsidiary depositors' ledger.

A further classification of notes discounted and loans authorized is necessary, and therefore a record is kept according to dates of maturity. The information on each note is entered in this record, called a Loan and Discount Tickler (Form XXXIII), under the maturity date. By referring to this record the notes maturing on any given day can be determined at a glance, and provisions can be made for collecting them on that day. This book is in reality a subsidiary ledger in that it gives the detail of the Loans and Discount account, which is a control account. The notes maturing on a given day are paid by check or by cash, or in some instances are renewed. In either event the general ledger bookkeeper is notified by the loan department of the amount to be credited to loans and discounts. This amount is always the total of the maturing notes.

Investments

The National Bank Act, as amended, places many limitations upon the directors in making loans and in incurring liabilities. Thus loans may be made upon improved real estate provided the amount of the loan does not exceed a

designated percentage of the appraised value of the real estate and provided the loan is not made for a term longer than five years. It may hold such real estate as is necessary for the transaction of its business and also real estate as may be conveyed to it in good faith by way of security for debts previously contracted. There are also limitations on loans which may be granted to any one person or company. A national bank may not loan upon or purchase its own stock. It may make investments in securities but these investments are carefully regulated. Types of liabilities which may be incurred are restricted. As a further protection against loss to depositors the account of each depositor of a member of the Federal Reserve System is insured up to a certain maximum amount by the Federal Deposit Insurance Corporation.

Clearing Department

The clearing department, though a separate department in most banks, is in reality a subsidiary of the receiving department. As stated previously, depositors turn over to the receiving department in their deposits numerous checks drawn on other banks. To facilitate collection of these checks, associations known as clearing houses have been formed by banks in practically all cities. Instead of collecting checks drawn on other banks by messenger, each bank sends to the clearing house the checks which it holds against other members of the clearing house. These checks which have to be "cleared" are handled by the clearing department of the bank. Each department which receives checks drawn on clearing-house banks forwards them to the clearing department. This department sorts the checks according to banks. The checks are then listed and placed in envelopes, each bearing the name or number of a clearing-house member. A recapitulation of all amounts due is listed on a printed form containing the name and number of each bank. A clerk takes this sheet to the clearing house together

with the envelopes containing the checks to be cleared. The total amount of each envelope is listed on the above-mentioned sheet, and the grand total represents a credit to the bank presenting the checks to the clearing house. The clerk distributes these envelopes to the window or desk of each bank's representative at the clearing house; each representative compares the amount of the package with the amount listed on the sheet, and gives a receipt to the clerk. Another representative of the bank accompanies the clerk to the clearing house. He takes his place at the bank's window or desk, receives envelopes from the other banks' clerks, and lists them on a sheet called a debit sheet. The total of this sheet represents a debt of the bank receiving such items. The difference between the debit and credit sheets represents either a debt or credit of the bank.

The clearing house makes settlement of these sheets and notifies each bank of the amount of debt or credit due from or due to the bank. This debt or credit was paid formerly by clearing-house certificates or gold certificates. At the present time the clearing house notifies the Federal Reserve Bank of the district of the amounts due from or due to each member bank. The Federal Reserve Bank debits or credits the member's reserve account. In this way millions of dollars of checks are cleared daily without the transfer of funds.

Each day, after the bank's clerk returns from the clearing house, all checks which he received from other clearing-house banks are immediately compared with statements these banks have rendered. The checks are then classified alphabetically to facilitate the making of entries in the various ledgers. For example, those to be entered in the A to F individual depositors' ledger will be sorted into a separate stack, when the signatures will be verified and the other details of the checks examined. Precautionary measures must be taken in order to obviate paying out funds for checks that are improperly or illegally drawn. Any checks that have been incorrectly made out, or which have been

improperly endorsed, or on which payment has been ordered stopped, and those which it is found have not sufficient funds in bank for payment of them, are returned to the clearing house before the close of business. The checks are now debited to the proper accounts in the individual ledger. They are then canceled and filed away; when the pass book of a depositor is balanced, or when a monthly statement is rendered by the bank, the checks are returned.

Transit Department

In addition to checks drawn on clearing-house members, banks receive daily checks which are drawn on banks in other cities. These checks are collected through correspondent banks, of which more will be said later. When received they are turned over to the transit department, where they are sorted and placed in envelopes preparatory to mailing. The contents of each envelope are noted on what is known as a remittance letter, which is made in duplicate. The envelopes and remittance letters are forwarded to the banks acting as correspondents. These correspondent banks are charged with the total of the daily letters by the general ledger bookkeeper.

Exchange Department

When the duties of the heads of the departments already mentioned become burdensome, some of them are delegated, and new departments, subsidiary in character, arise. The exchange department for the most part is a product of the large bank. The duties of this department consist in issuing cashier's checks and furnishing exchange for customers. The latter is effected through drafts on correspondents. From time to time this department issues Certificates of Deposit. They are merely receipts for special deposits which draw interest, generally less than that allowed on savings deposits.

CHAPTER XII

THE BOOKS OF A BANK

Corporation Records

The books of a bank can be classified into two groups: those containing the corporation records and those containing the commercial records. The corporation records consist of those books which are found in all corporations and comprise the following: Minute Book, Stock Certificate Book, Stock Ledger, Transfer Ledger, and Subscription Register. These books, with the exception of the Minute Book, are subsidiary to the capital stock account. The Minute Book records the resolutions made by the board of directors at their regular or special meetings. These resolutions are often the basis of very important entries in the commercial records. In our study we will confine our attention to the commercial records as these records reflect all that is peculiar to bank accounting.

Commercial Records

The actual daily transactions of a bank are recorded in the commercial books of original entry and final record. As the work of a bank centers around the handling of cash and its conversion into credit, it follows that the most important records are the cash records.

Institutions, such as commercial and savings banks, occupying positions of public trust, are charged with a higher degree of accountability than are most businesses. It has been necessary, therefore, to devise ways and means whereby this responsibility can be fully discharged. Prob-

ably the most desirable method consists in establishing within the departments of a bank an elaborate internal-check system for the purpose of preventing or discovering fraudulent transactions. Accordingly each department of a bank prepares a daily settlement showing what disposition has been made of assets charged to it. These daily settlements summarize the details of the day's business and are subsequently summarized in a general settlement. Postings may be made to the general ledger accounts from the general settlement or from approved debit and credit tickets prepared from the individual tellers' settlements. The method whereby control is exercised over the enormous number of individual transactions can be illustrated by referring to the daily settlements which are prepared by the department heads or tellers. A teller is held responsible for assets which he receives and is relieved of responsibility when assets are turned over to others. Settlements or tellers' proofs do not in any sense represent general ledger accounts. For the purpose of illustrating the method of summarizing departmental activities a series of settlements will be analyzed and traced into the cash book or journal of a bank. For convenience the explanations of the items in the settlements will be numbered to correspond with the numerals set opposite the respective amounts in the various settlements.

Receiving Teller

RECEIVING TELLER

(1) Individual Deposits..	$500,000	(2) Checks on own bank.	$120,000
		(3) Checks on city banks.	120,000
		(4) Checks on out-of-town banks............	75,000
		(5) Currency...........	185,000
	$500,000		$500,000

(1) As stated previously, the deposit tickets after verification are sent to the individual bookkeeping department, where credits are entered. For settlement purposes the

receiving teller keeps a record of the total deposits received. At the end of the day he notifies the general ledger bookkeeper of the total amount of deposits received, and this amount acts as a basis for the cash book entry:

Cash..........................	$500,000	
Individual Deposits.........		$500,000

A verification of the credit to individual deposits is received from the individual bookkeeping department. This department notifies the general ledger bookkeeper of the total credits posted individually to the depositors' accounts.

(2) The checks received as part of the deposits but representing charges against other depositors are turned over to the individual bookkeeping department, where they are charged to the depositors. The teller, after totaling, notifies the general ledger bookkeeper, who makes the entry:

Individual Deposits.............	$120,000	
Cash......................		$120,000

This is verified by the general ledger bookkeeper by getting the debit totals from the individual bookkeeping department.

(3) Checks on city banks are turned over to the clearing teller, who gives a receipt for them. No entry is made at this point as the clearing teller's settlement is used as a basis for the entry.

(4) Checks on out-of-town banks are sent to the transit teller, who will account for them in his settlement.

(5) Currency is given to the paying teller, who must account for it in his settlement.

Mail Teller

MAIL TELLER

(6) Individual Deposits..	$50,000	(8) Checks on own bank.	$10,000
(7) Bank Deposits.......	100,000	(9) Checks on city banks	120,000
		(10) Checks on out-of-town banks......	20,000
	$150,000		$150,000

(6) Deposits received by the mail teller may be transferred to the receiving teller. If they are not turned over to the receiving teller, a separate settlement is made. Deposit slips are sent to the individual bookkeeping department for posting in detail, and the general ledger bookkeeper is notified as to total individual deposits received. The entry would be:

Cash	$50,000	
Individual Deposits		$50,000

(7) Bank deposits received by the mail teller from correspondent banks are handled similarly. The details of bank deposits are posted in a bank and banker's ledger, and control is exercised in the general ledger by means of the following entry:

Cash	$100,000	
Due to National and Other Banks		$100,000

(8) Checks on his own bank received by the mail teller are sent to the individual bookkeeping department, and the general ledger bookkeeper is advised as to the total amount. The entry would be:

Individual Deposits	$10,000	
Cash		$10,000

(9) Checks on city banks are forwarded to the clearing teller, who renders an accounting for them in his settlement.

(10) Checks on out-of-town banks go to the transit teller, who renders an accounting for them.

Note Teller

Note Teller

(11) Maturing Notes (Discount Tickler)	$125,000	(12) Checks on own bank	$60,000
		(13) Checks on city banks	50,000
		(14) Currency	15,000
	$125,000		$125,000

(11) All notes maturing on a given day are charged to the note teller. The Discount Tickler shows what notes are to be collected each day. Since the note teller must produce an equivalent in cash or checks for notes maturing on a given day, an entry is made in the cash book as follows:

Cash..........................	$125,000	
Loans and Discounts........		$125,000

Occasionally a borrower finds it impossible to meet his obligation at maturity. If the maturing note is supported by ample collateral the bank may either dispose of the collateral and thus reimburse itself, or it may, and usually does, renew the note. A renewal is equivalent to making a new loan, and the entries made appear on both sides of the cash book, that is, as if cash had been received in payment of the old note and had been disbursed in acquisition of a new one. Notes which are not paid or renewed may be transferred to a Loans and Discounts Protested account, or to a suspense account, or in certain cases may be charged to profit and loss.

(12) These checks are turned over to the individual bookkeeping department, where charges are posted in detail. A cash journal entry is made as follows:

Individual Deposits.............	$60,000	
Cash......................		$60,000

(13) (14) These items are turned over to the clearing teller and paying teller respectively, and are handled like other checks and currency items received by them.

Collection Teller

Collection Teller

(15) Individual Deposits....	$4600	(17) Checks on city banks...	$3381
(16) Collection and Exchange	5	(18) Checks on out-of-town banks.............	1224
	$4605		$4605

(15) This represents the total of collection items which have been collected for depositors during the day and credited to their accounts in the individual ledger. The general ledger bookkeeper makes the following entry for purposes of control:

Cash	$4600	
Individual Deposits		$4600

(16) Collection and Exchange represents a charge for service rendered and a source of bank earnings. The collection teller reports the total earnings from this source, which give rise to the entry:

Cash	$5	
Collection and Exchange		$5

(17) (18) These items are turned over to the clearing teller and the transit teller respectively.

Discount Teller

Discount Teller

(19) Individual Deposits	$316,800	(21) Notes Discounted	$320,000
(20) Interest and Discount	3,200		
	$320,000		$320,000

(19) (20) (21) The individual bookkeeping department receives, daily, deposit tickets or a statement showing the net proceeds to be credited on each note discounted, and each loan authorized. The deposit accounts of the borrowers are credited with the net proceeds of notes and the total of loans. Every note discounted is recorded in the Loans and Discount Register, and the discount teller furnishes the general bookkeeper with information for the following entries:

Loans and Discounts	$320,000	
Cash		$320,000
Cash	$320,000	
Interest and Discount		$3,200
Individual Deposits		316,800

Exchange Teller

EXCHANGE TELLER

(22) Cashier's Checks....	$25,000	(25) Checks on own bank.	$60,000
(23) Drafts on Correspondents...........	80,000	(26) Checks on out-of-town banks......	20,000
(24) Certificates of Deposit............	10,000	(27) Currency..........	35,000
	$115,000		$115,000

(22) Cashier's checks issued are recorded in a cashier's check register, and the general bookkeeper is advised as to the total of cashier's checks issued.

Cash............................	$25,000	
Cashier's Checks.............		$25,000

Cashier's checks are frequently issued in payment of invoices for materials received and services performed, after the invoices have been approved by the purchasing agent or other official who authorized the purchase. A bank carries very few expense accounts in its general ledger, and an analysis of the expense account in the general ledger can be made only by referring to a voucher or invoice register, in which invoices are recorded. When cashier's checks are issued to cover expenses the cash book entry usually involves a debit to expenses and a credit to cashier's check account.

(23) Drafts sold on correspondents are entered in a draft register, and the following summary entry is made:

Cash............................	$80,000	
Due from National and other Banks......................		$80,000

(24) Certificates of deposit issued are recorded in a certificate of deposit register. The cash book entry is:

Cash............................	$10,000	
Certificates of Deposit........		$10,000

(25) This transaction follows the same routine as (12):

Individual Deposits...............	$60,000	
Cash........................		$60,000

(26) (27) These items are turned over to the transit teller and paying teller respectively.

Paying Teller

PAYING TELLER

(28)	Cash Bal. (A.M.)...	$600,000	(29)	Checks on own bank.	$205,000
(5)	From Rec. Teller....	185,000	(30)	Checks on city banks.	5,000
(14)	From Note Teller...	15,000	(31)	Payroll and Expenses	9,000
(27)	From Exch. Teller..	35,000	(32)	Balance............	616,000
		$835,000			$835,000

(28) This represents the cash balance as of the close of the previous day, and hence no entry is required.

(29) The procedure in this case is the same as in (12):

Individual Deposits.............	$205,000	
Cash......................		$205,000

(30) These items go to the clearing department.

(31) Payments of this nature are supported by expense records:

Expenses.........................	$9000	
Cash.........................		$9000

(32) This should agree with the cash-book balance at the end of the day.

Clearing Teller

CLEARING TELLER

(3)	From Rec. Teller....	$120,000	(33)	Checks to Clearing House...........	$298,381
(9)	From Mail Teller...	120,000			
(13)	From Note Teller...	50,000			
(17)	From Coll. Teller....	3,381			
(30)	From Paying Teller.	5,000			
		$298,381			$298,381

(33) Checks on other banks received from other tellers by the clearing teller will be sorted according to banks and sent by messenger to the clearing house, where delivery

will be made. The total of these checks gives rise to an entry as follows:

Exchanges for the Clearing House.	$298,381	
Cash......................		$298,381

Transit Teller

TRANSIT TELLER

(4) From Rec. Teller....	$75,000	(34) Remittance Letters..	$116,224
(10) From Mail Teller...	20,000		
(18) From Coll. Teller...	1,224		
(26) From Exchange Teller...........	20,000		
	$116,224		$116,224

(34) Items received by the transit department from the various tellers will be sorted and sent to correspondents for credit. The total of the remittance letters, copies of which are retained, is the basis for the following entry:

Due from National and Other Banks......................	$116,224	
Cash......................		$116,224

The several preceding pages cover the more important entries which are made daily. Specific entries, of course, must be made in accordance with the nature of each transaction. Thus, overs and shortages, which occur frequently in tellers' accounts, necessitate the keeping of a tellers' difference account. Checks received from the clearing house act as an offset to checks sent to the clearing house, and in almost all cases are charged to individual depositors' accounts. Balances due to or due from the clearing house are settled by adjustment of the bank's deposit account with the Federal Reserve Bank. Rediscounts with the Federal Reserve Bank increase the bank's reserve and at the same time increase its liability on account of notes payable. Checks on out-of-town banks may be deposited with the Federal Reserve Bank for collection instead of being

sent direct to the respective banks by the transit department. We can thus see that a great variety of bookkeeping entries is encountered by a bank during the course of the day's business.

Cash Book or Journal

It has been shown that practically every entry made has an effect upon some control account kept by a bank. All the entries affecting these control accounts appear in the cash book or cash journal.

The preceding entries shown in debit and credit form have been summarized in the cash journal presented herewith. Entries other than cash may be recorded in an ordinary two- or three-column journal from debit and credit tickets properly prepared and approved by the bank officials. The cash receipts and disbursements journal may be arranged in columnar form. Postings are made to the general ledger from the cash books and journal and a trial balance or daily statement taken therefrom after all postings have been made. General ledger postings are in summary form and the total of each day's postings to any account must be in agreement with the details posted to subsidiary ledgers or records in other departments of the bank. The general ledger control accounts are supported by details appearing in the following records:

Individual Depositors' Ledgers	Liabilities
Due to Banks and Bankers	
Draft Register	
Certificate of Deposit Register	
Bills Payable Register	
Cashier's Check Register	
Loans and Discount Register	Assets
Loans and Discount Tickler	
Investment Ledgers	
Due from Banks and Bankers Ledger	
Voucher Register	Expenses
Payroll Book	

Date, July 23, 19....

	Item	Amount
P. M. Balance of Cash (Previous Day)........................		$600,000
Loans and Discounts		
Note Teller..		125,000
Individual Deposits		
Receiving Teller..............................	$500,000	
Mail Teller....................................	50,000	
Collection Department.........................	4,600	
Discount Teller...............................	316,800	871,400
Other Banks		
Mail Teller..		100,000
Exchange Teller..................................		80,000
Interest and Discount		
Discount Teller..................................		3,200
Certificate of Deposit		
Exchange Teller..................................		10,000
Cashier's Checks		
Exchange Teller..................................		25,000
Collection and Exchange		
Collection Department............................		5
Cash Debit................................		$1,814,605

CASH RECEIPTS JOURNAL

Date, July 23, 19......

	Item	Amount
Loans and Discounts		
Discount Teller..............................		$320,000
Individual Deposits		
Receiving Teller..............................	$120,000	
Mail Teller..............................	10,000	
Note Teller..............................	60,000	
Exchange Teller..............................	60,000	
Paying Teller..............................	205,000	455,000
Other Banks		
Transit Department..............................		116,224
Interest and Discount		
Expenses		
Paying Teller..............................		9,000
Exchanges for the Clearing House		
Clearing Teller..............................		298,381
Total Cash Credit..............................		$1,198,605
P. M. Balance of Cash..............................		616,000
Total..............................		$1,814,605

CASH DISBURSEMENTS JOURNAL

The general discussion of bank accounting has involved a discussion of most of the above records. There are a few, however, about which nothing has been mentioned. The more important of these books are the bills payable register, the investment ledgers, the voucher register, and the payroll book.

The bills payable register records the bank's liability on bills issued. The investment ledgers contain the details of securities and real estate owned. The voucher register contains a record of the expenses incurred. The payroll book contains the names and salaries of the employees. These books are self-explanatory, and no extended discussion of them is necessary.

CHAPTER XIII

A BANK'S RELATION WITH ITS CORRESPONDENTS

One of the main duties of the transit teller is to see that checks received which are payable in other cities are promptly forwarded for credit or collection. Accordingly, all checks payable by banks in other cities are sent to him each day. These checks are sorted, and when they are ready to be forwarded, they are sent to banks in various sections of the country for collection. A remittance letter accompanies each group of checks. These remittance letters state exactly what items are being forwarded for collection and credit. Upon receipt of the letters, the receiving banks in turn sort the checks, and if necessary make collection through the clearing houses or through other banks with which they maintain deposit relations.

Banks which perform services similar to the above, or other services shortly to be mentioned, are known as correspondent banks. Small country banks find it advantageous to maintain correspondent relations with large city banks, and these in turn find it highly desirable to maintain similar relations with banks in other cities. The main reasons for maintaining correspondent accounts are as follows:

(1) The investment of surplus funds over and above amounts required for the proper conduct of banking.
(2) The convenience afforded in the collection of checks, notes, and drafts.
(3) To afford accommodation to customers desiring exchange on other cities.
(4) To afford accommodation to customers through the issuance of travelers' checks and letters of credit.

A bank making deposits with a correspondent keeps a record of the amount it has on deposit, just as does an individual who has a bank account. It knows at all times the actual balance it has on deposit in each of its correspondent banks. The bank which receives the deposit handles the account as it does other deposit liabilities. Credit is given the depositing bank for all deposits, generally called remittances or remittance letters, for all interest added, and for collections made on its behalf. The depositing bank is charged with all drafts drawn by it on the correspondent and occasionally with petty expense items, such as telephone, exchange, and collections. At frequent intervals, usually monthly, the depository bank sends to the depositing bank a statement, with the request that it be verified and a report, or reconciliation, rendered to the depository bank.

This reconciliation, prepared and forwarded to the depository bank, is based on the theory of debit and credit. In appearance, however, it is quite different from the usual bank reconcilement made by individuals and business houses. The method of reconciling can best be shown by taking a hypothetical case.

The Sixth National Bank of Bloomsburg, Pa., opens an account with the Merchants' National Bank of New York, for the purpose of creating New York exchange for its customers and as a collecting medium for checks payable in and around New York. At the end of the month the Merchants' National Bank of New York sends a statement to the Sixth National Bank of Bloomsburg, Pa. The statement forwarded, just as it appears on the books of the New York bank, follows:

SIXTH NATIONAL BANK OF BLOOMSBURG
(As It Appears upon the Books of the Merchants' National Bank)

Date 19—	Credits		Debits		Balance
July 2	R.	$10,000.00			$10,000.00
5			Ck.	$333.83	9,666.17
5	R.	6,533.12			16,199.29
6	R.	7,200.07			23,399.36
6			Ck.	2,059.17	21,340.19
7	Coll.	150.00			21,490.19
7			Tel.	1.25	21,488.94
10	R.	2,382.21			23,871.15
12			Ret.	74.15	23,797.00
12	R.	4,229.03			28,026.03
13	Coll	512.15			28,538.18
13			Ck.	3,152.20	25,385.98
16	R.	3,112.30			28,498.28
16			Ck.	963.63	27,534.65
18	Coll	422.61			27,957.26
19			Ck.	20.60	27,936.66
20	R.	2,567.38			30,505.04
21			Ck.	1,880.03	28,624.01
21			Ck.	810.12	27,813.89
23	R.	1,198.99			29,012.88
23			Ck.	348.80	28,664.08
23			Ck.	10,057.00	18,607.08
24	Int.	52.67			18,659.75
			July 24, Balance....		$18,659.75

Explanation of abbreviations: Tel. = Telephone; R. = Remittance Letter; Ck. = Check; Coll. = Collection; Ret. = Return Item; Int. = Interest.

Variations of the above form are often found. A few large banks, in rendering statements to their correspondents, reverse their debits and credits to enable their correspondents' cashiers to compare the items of the statement with those of their own account with a minimum of effort and error.

The account upon the books of the Sixth National Bank of Bloomsburg, Pa., follows:

MERCHANTS' NATIONAL BANK OF NEW YORK

(As It Appears upon the Books of the Sixth National Bank)

July	1	Remittance Letter.	$10,000.00	July	3	Draft No. 1..	$333.83
	3	Remittance Letter.	6,533.12		5	Draft No. 2..	2,059.17
	5	Remittance Letter.	7,200.00		9	Draft No. 3..	20.60
	7	Remittance Letter.	2,382.21		11	Draft No. 4..	3,152.20
	9	Collection........	150.00		13	Draft No. 5..	1,080.30
	11	Remittance Letter.	4,229.03		14	Draft No. 6..	963.63
	14	Remittance Letter.	3,112.30		14	Return Item..	74.15
	18	Remittance Letter.	2,567.38		16	Draft No. 7..	1,880.03
	20	Collection........	422.61		17	Draft No. 8..	348.80
	21	Remittance Letter.	1,198.99		18	Draft No. 9..	810.12
	22	Remittance Letter.	2,000.00		20	Draft No. 10.	10,057.00
	23	Remittance Letter.	1,800.50		21	Draft No. 11.	1,131.11
					24	Draft No. 12.	25.68
				Balance.............			19,659.52
			$41,596.14				$41,596.14
July	24	Balance..........	$19,659.52				

Upon receipt of a statement from its correspondent in New York, the Bloomsburg bank checks the statement and the account. Differences which can be located by the Bloomsburg bank, such as those which are due to errors in recording drafts, are noted, and if the Bloomsburg bank is in error corrections are made. The reconcilement statement sent by the Bloomsburg bank to its New York correspondent is given herewith:

Bloomsburg, Pa., July 30, 19—

To the Cashier,
Merchants' National Bank,
New York, N. Y.

The statement rendered by you showing a balance due us amounting to $18,659.75, as of the close of business July 24, 19—, agrees with our books with the following exceptions:

Date	Item	Amount	Date	Item	Amount
	We debit (you do not credit)			We credit (you do not debit)	
7/22	Remittance........	$2,000.00	7/13	Draft.............	$1,080.30
7/23	Remittance........	1,800.50	7/21	Draft.............	1,131.11
			7/24	Draft.............	25.68
	You debit (we do not credit)			You credit (we do not debit)	
7/7	Telephone Charge..	1.25	7/7	Remittance $7,200.07	
				We debit 7/5 7,200.00	
					.07
			7/13	Collection.........	512.15
			7/24	Interest...........	52.67
	Your Credit Balance	18,659.75		Our Debit Balance..	19,659.52
	Total...........	$22,461.50			$22,461.50

Respectfully yours,
Cashier.

The above form, which is peculiar to banks, shows similar totals on both sides. It differs from the ordinary reconcilement in that it is built up by addition, rather than by additions and subtractions. If the accounts as given represented the relations of a business man with his bank, the reconcilement would appear on the back of the stubs of his check book, undoubtedly taking the following form:

Check Book Balance forwarded			$19,659.52
7/24—Bank Balance as per Statement			$18,659.75
Less Checks outstanding:			
No. 5	$1,080.30		
No. 11	1,131.11		
No. 12	25.68		2,237.09
			$16,422.66
Add Deposits in Transit			
7/22	$2,000.00		
7/23	1,800.50		3,800.50
Adjusted Bank Balance			$20,223.16
7/24—Check Book Balance			$19,659.52
Add:			
Error in Remittance			
7/6 —Bank Credited	$7,200.07		
Check Book	7,200.00	$ .07	
7/13—Collection		512.15	
7/24—Interest		52.67	
			564.89
			$20,224.41
Less			
7/7 —Telephone Charge			1.25
Corrected Check Book balance			$20,223.16

If, instead of going through the above procedure of adding and subtracting, the business man were to add to his own balance the items which he deducts from the bank balance, a reconcilement similar to the one given for banks would result.

A very important feature of reconcilements is the necessity of following up items of difference which appear from month to month. Items of difference are generally adjusted by one or the other of the banks during the month following the rendition of the statement. Petty defalcations might be concealed by carrying as items of difference remittances in transit. It is accordingly advisable to see that differences are located and adjustments are made at the earliest possible moment.

CHAPTER XIV

BANK BALANCE SHEET, BANK RESERVE, AND BANK EXAMINATIONS

THE balance sheet or statement of assets and liabilities of the average business house is prepared once a month, sometimes at less frequent intervals. The preparation of this statement is attended by more or less confusion at all times. Provision must be made for depreciation and for possible loss from doubtful customers' accounts. Accruals and prepayments must be calculated or estimated. Inventories often require adjustment. A bank, on the other hand, in preparing its balance sheet does not labor under the same difficulty as a manufacturing company.

Balance Sheet

A bank's relation to its depositors and to the public is such that a daily statement of assets and liabilities is essential. Since a considerable amount of cash is handled daily, some method must be devised to limit the possibility of loss through dishonesty. The bank balance sheet, accordingly, is prepared daily, and it has already been explained how the various departments through their settlement sheets expedite its preparation. The majority of items contained in each department's settlement can be compared with and proved by settlements received from other departments. It is also necessary for banks to have their accounts always in balance. An examination may be made at any time by the Comptroller of the Currency of the United States or another outside agency.

The Comptroller of the Currency of the United States, under Section 5211, United States Revised Statutes, issues

PLEASE FOLD THIS SIDE OUT

Form [illegible]—Call No.
TREASURY DEPARTMENT
Office of the Comptroller of the Currency
Statistical—Revised September 1936

Reserve District No. ....

Charter No. ....

Every blank space and schedule must be filled in. Where there are no figures to report, the word "None" must be written or stamped. Printed items on this blank must not be scratched or amended in any manner. Any amounts which cannot be properly included in the printed items must be entered under "Other Assets" or "Other Liabilities."

REPORT OF CONDITION of The .... (Name of bank)

of .... (City or town), in the State of ...., at the close of business on ...., 1936

ASSETS	Insert word "NONE" if no amount is to be entered at right	Dollars	Cts.	
1. Loans and discounts (must agree with Schedule E)				1
2. Overdrafts				2
3. United States Government obligations, direct and/or fully guaranteed (must agree with Schedule F)				3
4. Other bonds, stocks, and securities (must agree with total of Schedule G)				4
Total Loans and Investments (Items 1 to 4) $	(Amount not to be extended)			
5. Customers' liability on account of acceptances executed by this bank and by other banks for account of this bank (exclusive of acceptances of this bank purchased or discounted, included in loans and discounts, and of anticipations by customers)				5
6. Banking house, $ ...... Furniture and fixtures, $				6
7. Real estate owned other than banking house				7
8. Reserve with Federal Reserve Bank				8
9. Cash, balances with other banks, and cash items in process of collection (must agree with total of Schedule I)				9
10. Cash items not in process of collection				10
11. Acceptances of other banks and bills of exchange or drafts sold with endorsement of this bank (must agree with per contra Item 23)				11
12. Securities borrowed (must agree with per contra Item 26)				12
13. Other assets (must agree with Schedule L)				13
Total				
LIABILITIES				
14. Demand deposits of individuals, partnerships, and corporations (must agree with Item 1 in Schedule J)				14
15. Time deposits of individuals, partnerships, and corporations (must agree with subtotal in Schedule K)				15
16. State, county, and municipal deposits (must agree with Item 3 in Schedule J plus Item 4 in Schedule K)				16
17. United States Government and Postal Savings deposits (must agree with Item 2 in Schedule J plus Item 3 in Schedule K)				17
18. Deposits of other banks, certified and cashier's checks, cash letters of credit and travelers' checks outstanding (must agree with Items 4 to 7 in Schedule J and Items 5 to 7 in Schedule K)				18
Total of Items 14 to 18, inclusive: (a) Secured by pledge of loans and/or investments $ ...... (b) Not secured by pledge of loans and/or investments ...... (c) Total Deposits	(Amounts not to be extended)			
19. Agreements to repurchase U. S. Government obligations or other securities sold				19
20. Bills payable (must agree with total of Items 1 to 3 in Schedule H)				20
21. Rediscounts (must agree with Item 4 in Schedule H)				21
22. Obligations on industrial advances transferred to the Federal Reserve Bank				22
23. Acceptances of other banks and bills of exchange or drafts sold with endorsement of this bank (must agree with per contra Item 11)				23
24. Acceptances executed by this bank for customers and to furnish dollar exchange, exclusive of acceptances of this bank purchased or discounted and included in "Loans and Discounts"				24
25. Acceptances executed by other banks for account of this bank				25
26. Securities borrowed (must agree with per contra Item 12)				26
27. Interest, taxes, and other expenses accrued and unpaid				27
28. Dividends declared but not yet payable and amounts set aside for dividends not declared				28
29. Other liabilities (must agree with Schedule M)				29
30. Capital account: (a) Class A preferred stock, ... shares, par $ ...... per share, retirable at $ ...... per share. (b) Class B preferred stock, ... shares, par $ ...... per share, retirable at $ ...... per share. (c) Common stock, ... shares, par $ ...... per share. (d) Surplus ...... (e) Undivided profits—net ...... (f) Reserves for contingencies ...... (g) Preferred stock retirement fund ...... (h) Reserve for dividend payable in common stock ...... $				30
Total, including capital account				

Form XXXIV

REPORT OF CONDITION

Form 2129
TREASURY DEPARTMENT
Comptroller of the Currency—Statistical
Revised March 193[illegible]

(PLEASE FOLD THIS SIDE OUT)

F. R. Dist. No. ....
Charter No. ....

REPORT OF EARNINGS AND DIVIDENDS of the ....

of .... (City or town), in the State of ...., for six months ended ...., 193..

Dividend No. ..... of .....% declared ...., 193.., payable ...., 193.., (Common) $..........
Dividend No. ..... of .....% declared ...., 193.., payable ...., 193.., (Preferred Class A) $..........
Dividend No. ..... of .....% declared ...., 193.., payable ...., 193.., (Preferred Class B) $..........

Capital stock paid in at end of period, par value:
- Common stock .... $..........
- Preferred stock
  - Class A .... $..........
  - Class B .... $..........

Total deposits at end of period .... $..........

IMPORTANT.—A complete report, showing all the transactions in the profit-and-loss account during the preceding six-month period, must be rendered on this form to the Comptroller of the Currency semiannually, on June 30 and December 31, whether or not dividends are declared. In addition reports of all dividends declared must be rendered within 10 days after date of declaration on Form No. 2136 or 2129-A (which will be furnished upon request). (*See section 5212, U. S. R. S.*) *Note penalty prescribed by section 5213, U. S. R. S.*

SECTION 1.—EARNINGS, EXPENSES, RECOVERIES, AND LOSSES FOR SIX-MONTH PERIOD COVERED BY THIS REPORT

1. EARNINGS:
- (a) Interest and discount on loans .... $
- (b) Interest and dividends on bonds, stocks, and other securities ....
- (c) Interest on balances with other banks ....
- (d) Collection charges, commissions, fees, etc. ....
- (e) Foreign department (except interest on foreign loans, investments, and bank balances) ....
- (f) Trust department ....
- (g) Service charges on deposit accounts ....
- (h) Rent received ....
- (i) Other current earnings ....
- (j) **Total earnings from current operations** .... $ (Repeat total at right) 1j

2. EXPENSES:
- (a) Salaries—officers .... Number of officers at end of period ....
- (b) Salaries and wages—employees other than officers .... Number of employees at end of period ....
- (c) Fees paid to directors and members of executive, discount, and advisory committees ....
- (d) Interest on deposits of other banks ....
- (e) Interest on other demand deposits ....
- (f) Interest on other time deposits ....
- (g) Interest and discount on borrowed money ....
- (h) Real estate taxes ....
- (i) Other taxes ....
- (j) Other expenses ....
- (k) **Total current expenses** .... $ (Repeat total at right) 2k

3. NET EARNINGS FROM CURRENT OPERATIONS (Item 1j minus item 2k) .... $ (Repeat total at right) 3

4. RECOVERIES, PROFITS ON SECURITIES SOLD, ETC.:
- (a) Recoveries on loans ....
- (b) Recoveries on bonds, stocks, and other securities ....
- (c) Profits on securities sold ....
- (d) All other (specify below):
  ....
  ....
- (e) **Total recoveries, profits on securities sold, etc.** .... $ (Repeat total at right) 4e

5. TOTAL, item 3 plus item 4e .... $ (Repeat total at right) 5

6. LOSSES AND DEPRECIATION:
- (a) On loans ....
- (b) On bonds, stocks, and other securities ....
- (c) On banking house, furniture and fixtures ....
- (d) Other losses and depreciation (specify below):
  ....
  ....
- (e) **Total losses and depreciation** .... $ (Repeat total at right) 6e

7. NET ADDITION TO PROFITS FOR CURRENT PERIOD (Item 5 minus item 6e; if a loss, show in red) .... $ (Repeat total at right) 7

(Carry the amount of item 7 forward to item 9 on reverse side)

[illegible] (See reverse side for sections 2 and 3)

FORM XXXV

REPORT OF EARNINGS

SECTION 2.—UNDIVIDED PROFITS ACCOUNT FOR CURRENT SIX-MONTH PERIOD			
8. UNDIVIDED PROFITS AT BEGINNING OF PERIOD (Same as item 13 of previous report)		$	8
9. NET ADDITION TO PROFITS FOR CURRENT PERIOD (Same as item 7 of this report; if a loss, show in red)			9
10. CREDITS TO UNDIVIDED PROFITS RESULTING FROM:			
(a) Withdrawals from reserves for contingencies	$		
(b) Withdrawals from preferred stock retirement fund			
(c) Withdrawals from reserve for dividend payable in common stock			
(d) Withdrawals of amounts set aside for dividends not declared			
(e) Withdrawals from surplus account			
(f) Reduction of capital stock not repaid to shareholders			
(g) Assessments paid for impaired capital stock			
(h) Voluntary contributions to surplus or profits			
(i) Total			10i
11. TOTAL, item 8 plus items 9 and 10i			11
12. DEDUCTIONS FROM UNDIVIDED PROFITS RESULTING FROM:			
(a) Transfers to reserves for contingencies			
(b) Transfers to preferred stock retirement fund			
(c) Transfers to reserve for dividend payable in common stock			
(d) Amounts set aside for dividends not declared			
(e) Transfers to surplus account			
(f) Cash dividends declared on common stock			
(g) Transfers to common capital stock (stock dividends declared)			
(h) Dividends declared on class A preferred stock			
(i) Dividends declared on class B preferred stock			
(j) Total			12j
13. UNDIVIDED PROFITS AT END OF PERIOD (Item 11 minus item 12j)			13

SECTION 3.—TOTAL CREDITS TO PROFITS SINCE ORGANIZATION AND DISPOSITION OF PROFITS

(Please see that this section balances)

14. Surplus at end of period	$	21. Net profits as national bank since organization (Add item 7 of this report to item 21 of previous report)	$
15. Undivided profits at end of period (Same as item 13 above)		22. Reduction of capital stock not repaid to shareholders	
16. Reserves for contingencies at end of period		23. Assessments paid for impaired capital stock	
17. Preferred stock retirement fund		24. Voluntary contributions to surplus or profits	
18. Reserve for dividend payable in common stock		25. Profits and surplus of old organization at date of conversion to national system	
19. Amounts set aside for dividends not declared			
20. (a) Total dividends declared on common stock			
(b) Total dividends declared on class A preferred stock			
(c) Total dividends declared on class B preferred stock			
TOTAL		TOTAL	

I, ______ (President or cashier), of the above-named bank, do solemnly swear that the foregoing statement is true, to the best of my knowledge and belief.

______ (President or cashier)

STATE OF ______

COUNTY OF ______

Sworn to and subscribed before me this ______ day of ______ 193

[SEAL] ______, *Notary Public.*

U.S. GOVERNMENT PRINTING OFFICE

FORM XXXV—REVERSE SIDE
REPORT OF EARNINGS

at least three calls a year to the national banks of the country, requesting each bank to furnish him with a statement of its resources and liabilities within five days of a date specified by him. The form of the report and the information contained therein are prescribed by the Comptroller. A portion of the form covering resources and liabilities is attached herewith (Form XXXIV). It will be noticed that the resources and liabilities are in many cases to be supported by subsidiary schedules. The form of the report covering earnings, expenses, and dividends is also given. (Form XXXV.)

On December 31, 1936, there were 5331 banks which rendered reports to the Comptroller of the Currency. A summary of the resources and liabilities of these banks, taken from the Comptroller's Abstract of Reports No. 190 revealed the following as of December 31, 1936:

Assets

	(000 Omitted)
Loans and discounts (including rediscounts)	$8,267,328
Overdrafts	3,882
U. S. Government securities owned	7,300,159
Securities guaranteed by U. S. Gov't as to interest and principal	1,385,395
Other bonds, stocks, securities, etc	4,094,490
Customers' liability account of acceptances	78,717
Banking house furniture and fixtures	633,095
Other real estate owned	176,506
Reserve with Federal Reserve banks	3,828,463
Cash in vault	518,503
Due from banks and cash items in process of collection	4,634,115
Cash items not in process of collection	9,099
Acceptances of other banks and bills of exchange or drafts sold with endorsement	5,779
Securities borrowed	273
Other resources	134,637
Total	$31,070,441

LIABILITIES

	(000 Omitted)
Demand deposits	$12,691,606
Time deposits	7,281,494
State, county, and municipal deposits	2,057,872
U. S. Gov't and postal savings deposits	658,230
Deposits of other banks	4,450,048
Certified and cashier's checks, cash letters of credit, etc., outstanding	469,147
Total Deposits	$27,608,397
Secured by pledges of loans and for investments	*2,388,301*
Not secured by pledges of loans and for investments	*25,220,096*
Agreements to repurchase U. S. Gov't and other securities sold	835
Bills payable	2,588
Rediscounts	62
Obligations on industrial advances transferred to Federal Reserve Bank	10
Acceptances of other banks and bills of exchange or drafts sold with endorsement	5,779
Acceptances executed for customers	83,126
Acceptances executed by other banks for account of reporting banks	11,504
Securities borrowed	273
Interest, taxes, and other expenses accrued and unpaid	47,636
Dividends declared and not yet payable	28,642
Other liabilities	110,579
Capital stock	1,598,815
Surplus	1,046,582
Undivided profits (net)	368,525
Reserve for contingencies	146,467
Preferred stock retirement fund	10,621
Total	$31,070,441

The balance sheet of a bank published in the daily papers exhibits only a very condensed statement of its resources and liabilities, thereby making an analysis of its condition extremely difficult. The report of condition, and the report of earnings and dividends, forwarded to the Comptroller of the Currency, show the resources, liabilities, earnings, expenses, and dividends in considerable detail. The forms of these reports without accompanying schedules are shown herewith.

Bank Reserve

One of the items on the asset side of the statement which is of very great importance is the reserve. This item is

called by national banks "Reserve with Federal Reserve Bank." Banks which are members of the Federal Reserve System are divided into three groups, Central Reserve City Banks, Reserve City Banks, and Country Banks, each group having separate reserve requirements. Two cities, New York and Chicago, are known as Central Reserve Cities. Sixty cities at the present time are classified as Reserve Cities. Banks located in these cities if members of the Federal Reserve System must maintain their reserves at levels designated by the Board of Governors of the Federal Reserve System. All other banks which are members of the System are known as country banks. The form prescribed for the computation of reserves is shown herewith. Regulations D under section 19 of the Federal Reserve Act contains provisions relative to the computation of reserves, deduction allowed, deficiencies in reserves, and penalties assessed in connection therewith. The reserve calculations shown in Form XXXVI are those made for a bank in a small city. Reserve calculations were based on 4½ per cent for time deposits and 10½ per cent for demand deposits, calculations being made as of October 21, 1936.

The term "demand deposits" as used in the form for the calculation of reserve includes individual deposits subject to check, certificates of deposit, state, county, and municipal deposits, deposits of other banks and trust companies (payable within 30 days but not subject to immediate withdrawal), and other demand deposits. The term "time deposits" is used to designate those deposits payable after 30 days or subject to 30 days' or more notice. It includes state, county, and municipal deposits, deposits of other banks and trust companies, deposits evidenced by savings pass books, certificates of deposits, Christmas savings accounts, Postal savings deposits, etc., provided these are not payable within 30 days.

Bank Examinations

One of the most vital checks for safeguarding the operation of a bank is the bank examination. Banks are operating

Sample

Board of Governors
of the Federal Reserve System
Form B-15
(Revised Dec., 1935)

__________ Trust Company, __________, Penna.
as of 10/22/36.

Deposits 10/21/36 P.M.

Computation of Reserve to be carried with the Federal Reserve Bank by Member Banks

(For definitions of the terms gross demand deposits, deductions allowed in computing reserves, cash items in process of collection, net demand deposits and time deposits, see Regulation D of the Board of Governors of the Federal Reserve System)

1. **Gross demand deposits,** including U. S. Government deposits and demand balances of other banks .... $ 1,632,285.64
   (See Schedule J of the quarterly condition report for items constituting demand deposits)

2. **Deductions allowed in computing reserves:**
   (a) Balances subject to immediate withdrawal due from other banks* (except balances due from Federal Reserve banks, from foreign banks or branches thereof, from foreign branches of domestic banks, or from private banks) .... $ 487,334.00
   (Corresponds to item 1 in Schedule I of the quarterly condition report)
   (b) Cash items in process of collection, except to the extent included in item 2 (a) above (including checks with Federal Reserve banks in process of collection and checks on hand which will be presented for payment or forwarded for collection on the following business day) .... 18,465.06 — 505,799.06
   (Corresponds to item 2 in Schedule I of the quarterly condition report)

3. **Net demand deposits** (item 1 minus item 2) 1,126,486.58

4. **Time deposits** 2,165,262.34
   (See Schedule K of the quarterly condition report for items constituting time deposits)

5. **Reserve required:**
   (a) On net demand deposits (item 3 above):
   Banks in central reserve cities, percent;
   Banks in reserve cities, percent;
   Banks located elsewhere, percent. 10½% 118,281.09
   (b) On time deposits (item 4 above): percent. 4½% 97,436.80
   (c) **Total reserve to be maintained with Federal Reserve Bank** 215,717.89

*Including cash items forwarded to a correspondent bank for collection and credit and charged to item "Due from banks".

Balance with Federal Reserve Bank - 10/22/36 — 232,123.57

Excess reserve — 16,405.68

FORM XXXVI

RESERVE COMPUTATION

Excerpts from Latest Call Report Form

(National banks—form 2130; State bank members—form 105)

Schedule I—Cash, balances with other banks, exchanges for clearing house, etc.

1. Demand balances with other banks in the United States (except private banks and American branches of foreign banks):	
(a) Due from banks in New York City	$ 151,745.05
(b) Due from banks elsewhere in the United States	555,588.97
2. Cash items in process of collection, including exchanges for clearing house, except to the extent included in item 1	18,465.06
SUBTOTAL of items 1 and 2 (amount deductible from demand deposits in determining amount subject to reserve) $ 505,799.06	(Amount not to be extended)
3. Time balances with other banks in the United States (except private banks and American branches of foreign banks)	
4. Balances with private banks and American branches of foreign banks	
5. Balances with banks in foreign countries (including balances with foreign branches of other American banks but excluding amounts due from own foreign branches)	
6. Cash in vault	
TOTAL of items 1 to 6 (must agree with item 9 of "Assets")	

Schedule J—Demand deposits (all deposits other than "time deposits" as defined in Regulation D of the Board of Governors of the Federal Reserve System)

1. Deposits of individuals, partnerships, and corporations (must agree with item 14 of "Liabilities")	$ 1,547,193.20
2. United States Government deposits	
3. State, county, and municipal deposits	50,000.00
4. Deposits of other banks in the United States (except private banks and American branches of foreign banks)	10,280.70
5. Deposits of private banks and American branches of foreign banks	
6. Deposits of banks in foreign countries (including balances of foreign branches of other American banks but excluding amounts due to own foreign branches)	
7. Certified and officers' checks, letters of credit and travelers' checks sold for cash, and amounts due to Federal Reserve Bank (transit account)	24,811.74
Total demand deposits (items 1 to 7 of this schedule)	$ 1,632,285.64

Schedule K—Time deposits (as defined in Regulation D of the Board of Governors of the Federal Reserve System)

1. Deposits (except savings deposits), of individuals, partnerships and corporations:	
(a) Certificates of deposit (other than for money borrowed)	$ 38,037.87
(b) Open accounts	
(c) Christmas savings and similar accounts	68,714.50
2. Deposits evidenced by savings pass books (No. of acc'ts ________)	2,058,509.97
SUBTOTAL of items 1 and 2 (must agree with item 15 of "Liabilities") $ 2,165,262.34	(Amount not to be extended)
3. Postal savings deposits	
4. State, county, and municipal deposits	
5. Deposits of other banks in the United States (except private banks and American branches of foreign banks)	
6. Deposits of private banks and American branches of foreign banks	
7. Deposits of banks in foreign countries (including balances of foreign branches of other American banks but excluding amounts due to own foreign branches)	
Total time deposits (items 1 to 7 of this schedule)	$ 2,165,262.34

Form XXXVI—Reverse Side

RESERVE COMPUTATION

with the public's money and therefore must submit to rigid examinations of records and funds. Temptation and opportunity to appropriate money often ensnare employees; occasionally officers divert bank funds to their private uses.

Losses can be forestalled or limited by examinations. There is no substitute for honest and competent management, but a careful, searching investigation of the conduct of a bank by capable examiners is a compelling deterrent to criminal mismanagement and a check upon careless or loose administration. The scope of modern bank examination has gradually been broadened by some supervising agencies until it approaches that of an audit. The trend is definitely towards a more thorough inquiry into the value of the assets, the correctness of the general accounts, the determination of the character and amount of the liabilities, the kind of investment and lending policies in vogue, and whether the directors and officers are pursuing sound practices in conformity with their primary duty to invest wisely, safely, and conservatively the funds of the depositors. The value of an examination conducted in behalf of the national or a state government is so well recognized that the Federal Government and most of the states have enacted laws creating departments of banking and authorizing regulation and examination of banking institutions. Examiners clothed with the power and authority of the government, supported by adequate legislation, examining without notice and devoting sufficient time and thought to their work, can strengthen and influence banking, but their efforts cannot supplant proper management.

Examinations may be conducted by representatives of organizations with which a bank is affiliated, such as the clearing house and the Federal Reserve Bank of its district; in addition, examinations are conducted by the Comptroller of the Currency of the United States and frequently by public accountants employed by the bank itself.

Clearing-house examiners in their operations are confined to the banks in a comparatively small area and are

thus able to make thorough examinations. Examinations may be conducted under the Federal Reserve System by examiners appointed by the Federal Reserve Board or by Federal Reserve Banks with the Board's approval.

The Comptroller of the Currency appoints chief national bank examiners who are assigned to the twelve Federal Reserve districts. These chief examiners direct the operations of a staff, the members of which are appointed individually for bank examinations. The Comptroller of the Currency conducts an impartial examination. His examiners investigate the cash balance, investments, loans, and collateral, to verify the accuracy of the records in question, and may make a detailed analysis of all the resources and liabilities of the bank. Such an examination enables the Comptroller to determine the strength of a bank and the propriety of its methods of operation.

Out of the banking crisis there was established the Federal Deposit Insurance Corporation for the guarantee of bank deposits. This agency conducts its own examination of banks preparatory to their entrance into membership of the Federal Deposit Insurance Corporation. After admittance into the corporation member banks are regularly examined each year by the examiners of the corporation. It can be said that this agency is tending to bring about uniformity in requirements for members which are drawn from the ranks of national banks, state banks which are members of the Federal Reserve System, and other nonmember state banks.

The public accountant is a professional who is completely equipped to obtain information as to the conduct of a bank, and is in a position to conduct a most thorough and satisfactory bank examination; it is desirable that banks frequently employ reputable accountants. Such an examination may consist of only a rapid survey of assets and records, or it may involve a careful checking over books of a certain department, or, finally, it may be a painstaking investigation of all the activities of the bank.

QUESTIONS AND PROBLEMS

(a) Questions

1. In connection with the daily transactions of a national bank, describe the work of the following departments, and show, in the form of specimen cash-book entries, the recording of the transactions arising therein:

(*a*) Receiving teller.
(*b*) Paying teller.
(*c*) Discount department.

(1) Notes discounted.
(2) Notes maturing.

2. From what sources (tellers) may the following debits and credits on the books of a bank arise:

(*a*) Credit to individual deposits.
(*b*) Debit to loans and discounts.
(*c*) Debit to cashier's checks.
(*d*) Credit to loans and discounts.
(*e*) Debit to clearing-house exchanges.

3. Name at least five controlling accounts kept in the general ledger of a bank, and name the subsidiary ledgers in which the details supporting these accounts are kept.

4. The following accounts appear upon the balance sheet of every bank:

(1) Individual deposits.
(2) Loans and discounts.

State the nature of the debits and credits to each of these accounts.

5. Outline the steps necessary to record the following transactions on the records of a bank from the moment of their inception until the final record is made in the general ledger:

(*a*) Deposit of A. Jackson for $1700, including cash $1000, checks on home bank $500, checks on out-of-town banks $200.
(*b*) Cashing of a check drawn on another bank, a member of the clearing house, for $250.
(*c*) Discounting a $2000 note of S. Clark. Discount $20. Proceeds credited to S. Clark's account.
(*d*) The payment in cash of notes amounting to $5000 which had matured today.

6. Trace the bookkeeping procedure involved in recording each of the following transactions:

(*a*) Receipt of a check by the receiving teller, drawn by another depositor.
(*b*) The cashing of a check drawn on a clearing-house bank.
(*c*) The discounting of a note for a depositor.
(*d*) The issuance of a draft on a correspondent bank.

7. What is mean by the term "teller's settlement"? What uses are made of this settlement?

8. Explain fully the following terms used in bank accounting:

(*a*) Certificate of deposit.
(*b*) Customer's liability account letters of credit.
(*c*) Exchanges for the clearing house.
(*d*) Remittance letter.

(b) Problems

1. The Helmville National Bank is a small country bank having only one teller, the cashier, who personally handles all the bank's transactions. His only assistant is a bookkeeper, who personally records all the transactions on the bank's books. The cashier prepares a general settlement every day.

At the beginning of business on October 14, the bank had on hand currency and coin totaling $2600.00.

During the day the following transactions took place:

Individual deposits received..................	$2400
Checks certified for depositors................	800
Sold drafts on correspondent bank............	200
Loans and discounts granted $500, discount $5, proceeds credited to borrowers' accounts.....	
Loans and discounts maturing $650; these were charged to borrowers' accounts.............	
Sent deposit letter to correspondent bank......	700
Checks on own bank turned over to bookkeeper	1000
Currency and coin on hand at end of day......	3490

The settlement shows a difference.

Prepare the general settlement.

2. The following information has been obtained regarding the work of the various departments of the Empire National Bank of Philadelphia on December 2:

1. Individual deposits received:		
Currency and coin		$44,374.50
Checks on own bank		18,738.77
Checks on clearing-house banks		5,048.51
Checks on out-of-town banks		43,024.34
		$111,186.12
2. Currency and coin beginning of day		$268,869.18
3. Checks were certified for depositors		85,308.06
4. Sold drafts on correspondents $13,020.00; exchange charged $12.00; received in payment:		
Checks on own bank	$11,000.00	
Currency and coin	2,032.00	
	$13,032.00	
5. Cashed checks as follows:		
Checks on own bank	$36,749.49	
Checks on clearing-house banks	4,437.33	
Certified checks	4,770.00	
	$45,956.82	
6. Loans and discounts granted		$35,238.00
Less:		
Discount		151.29
Proceeds credited to individual deposits		$35,086.71
7. Loans and discounts maturing, $42,600.00; interest, $150.00; total made up as follows:		
Collected by correspondents		$12,300.00
Received in checks on own bank		25,000.00
Received in currency and coin		5,450.00
		$42,750.00

8. Items received from customers for collection....		$19,707.72
9. Items collected for customers..................	$8,856.63	
Less: Collection and exchange..............	6.00	
Proceeds credited to their accounts........	$8,850.63	
Collections consisted of the following:		
Reported by correspondent banks.........		$2,134.95
Collection and exchange charged by them..		5.25
		$2,129.70
Checks on own bank....................		1,500.00
Currency and coin......................		5,221.68
		$8,851.38
Collection and exchange due own bank....		.75
		$8,850.63

10. Received deposit letters from correspondent banks, $10,151.71, made up as follows:

Checks on own bank.....................	$3,500.71
Checks on clearing-house banks............	4,000.00
Checks on out-of-town banks...............	2,651.00
	$10,151.71

11. Mailed deposit letters consisting of checks on out-of-town banks to correspondent banks, $24,334.84, to the Federal Reserve Bank, $21,340.50.
12. Exchanges sent to the clearing house $7,113.15; these were held over from the previous day.
13. Checks on own bank received from the clearing house $12,694.56; the clearing-house balance was settled through the Federal Reserve Bank.
14. Interdepartment transactions:
    Receiving teller turned over cash to paying teller $38,298.00.
    All checks on clearing-house banks were turned over to the clearing department.
    All checks on own bank were turned over to the bookkeeping department.
    All checks on out-of-town banks were sent to the transit department.
15. Currency and coin on hand at end of day:

Receiving teller............................	$6,076.50
Paying teller..............................	263,242.36
Loan department...........................	5,450.00
Collection department.....................	5,221.68
	$279,990.54

Prepare the tellers' settlements as of the close of the day.

3. From the solution prepared for Problem 2, prepare the cash journal summarizing the day's transactions.

4. The general ledger of the Inland National Bank of Cleveland contained the following items at the beginning of business December 3. Prepare a statement of resources and liabilities.

Acceptances payable	$36,612.50
Amounts due to banks, bankers and trust companies	229,718.78
Amounts due from banks, bankers and trust companies	266,298.11
Banking house	265,636.02
Bills payable	13,510.85
Other bonds and securities	431,971.62
Capital stock paid in	250,000.00
Cashier's checks outstanding	5,722.65
Cash in vault	134,434.59
Certified checks outstanding	3,796.69
Checks on city banks	3,013.63
Checks on out-of-town banks	3,106.71
Customers' liability, account of acceptances	28,837.50
Exchanges for clearing house	3,556.58
Furniture and fixtures	33,602.33
Individual deposits subject to check	1,151,395.86
Interest earned but not collected	6,969.69
Interest and discount collected but not earned	3,055.25
Reserve with Federal Reserve Bank	142,674.24
Loans and discounts	996,576.11
Municipal and County Deposits	177,345.00
Other liabilities	637.50
Reserve for interest accrued	9,005.50
Stock of Federal Reserve Bank	18,000.00
Surplus	50,000.00
Time deposits	735,459.29
Undivided profits	110,093.23
U. S. deposits	37,500.00
U. S. Government securities	479,175.97

5. Compute the reserve required to be kept for the above bank. Determine the excess or deficiency of the reserve carried with the Federal Reserve.

6. The Keystone State National Bank is located in a small town in Pennsylvania. Below is given a statement of resources and liabilities of this bank as of November 29. Using the information given in this problem you are asked to (1) present in column 4 below the statement of resources and liabilities as of November 30. (2) Calculate the reserve required as of November 30 and the excess or deficiency of reserve as of that date.

Resources	Nov. 29 Balances	Dr.	Cr.	Nov. 30 Balances
Loans and discounts	$1,269,000			
U. S. Govt. and other Securities owned	500,000			
Banking house and fixtures	70,000			
Reserve with Federal Reserve Bank	104,000			
Cash	127,000			
Due from banks	229,000			
Exchanges for clearing house	4,000			
	$2,303,000			

Liabilities				
Capital stock paid in	$175,000			
Surplus	56,000			
Undivided profits—net	13,000			
State and Municipal Deposits	175,000			
Due to banks, bankers and trust companies	14,000			
Certified checks outstanding	26,000			
Individual deposits subject to check	1,260,000			
Time deposits (savings)	537,000			
U. S. deposits	16,000			
Other liabilities	31,000			
	$2,303,000			

CASH BOOK

Summary of Transactions for November 30

Debit Accounts, Credit Cash

Individual deposits	$84,000
Due from banks	20,000
Loans and discounts	14,000
Certified checks	5,000
Exchanges for clearing house	6,000
Federal Reserve—for reserve purposes	4,000
Cash balance, P. M.	127,300
	$260,300

Credit Accounts, Debit Cash

Balance of cash on hand	$127,000
Individual deposits	69,000
Due to banks, bankers and trust companies	5,000
Due from banks, bankers and trust companies	6,000
Certified checks	17,000
Loans and discounts	30,000
Exchanges for clearing house	4,000
Federal Reserve Bank (adjustment of balance)	2,000
Undivided profits	300
	$260,300

PART IV

STOCK BROKERAGE

CHAPTER XV

THE BUSINESS OF THE STOCK BROKER

A BROKER may be defined as a person who buys or sells for another, receiving, as compensation for his services, a fee or a commission mutually agreeable. The commodity or article purchased or sold by the broker is usually mentioned when speaking of a broker. Thus one may refer to a grain broker, a cotton broker, a live-stock broker, or a stock broker. The actual buying and selling of these and many other commodities takes place in what is known as a market. Although the business transacted in many of these markets is exceedingly important, the discussions in this section will be confined to the activities of the stock broker and the accounting procedure followed in the recording of stock brokerage transactions.

Stock markets can be found in most of the larger cities of the world. In these markets, brokers meet at regular intervals for the purpose of buying and selling securities. Their activities are watched closely, for the interest in the stock market is not confined to the wealthy or to the owners of securities. Many look to the stock market for aid in the solution of their business problems. The trend of stock and bond prices often influences executives in making decisions as to whether a contemplated expansion of plant facilities should be undertaken, whether bonds ought to be sold, whether an issue of callable preferred stock should be retired,

etc. Traders too are interested in it because it furnishes their means of livelihood.

On the basis of the volume of transactions, it can be said that the most important stock markets in the United States are the New York Stock Exchange and the New York Curb Exchange. The New York Stock Exchange is an unincorporated association of stock and bond brokers. On March 1, 1937, there were 1375 members in this association, representing 653 stock exchange firms, operating 1209 branch offices throughout the nation.[1] The New York Stock Exchange in its constitution has provided rules for the government of the Exchange and its members. These regulations, together with the resolutions of the governing committee, establish the procedure to be followed between brokers and between brokers and customers.

Importance of Stock Brokerage Business

The securities which are bought and sold consist of stocks and bonds issued by public and private corporations. In order that its securities may be dealt in on the floor of the New York Stock Exchange, a corporation must comply with the listing requirements of the Exchange. That many corporations have found this to be desirable is evidenced by the fact that 1216 stock issues and 1405 bond issues were listed as of February 1, 1937, according to the New York Stock Exchange Year Book. During 1936, more than 496,000,000 shares of stock and more than $3,500,000,000 of bonds were traded on the floor of the Exchange. The mechanism necessary to handle this enormous business in securities, though functioning smoothly, day by day, is very complicated. Indeed, the layman, as a rule, does not understand the nature of the swiftly moving forces brought into play in effecting the purchase and sale of securities.

The successful operation of a brokerage house requires a large amount of capital. It is necessary to procure a

[1] New York Stock Exchange Year Books and Bulletins.

Stock Exchange membership or seat, the cost of which depends upon many factors. If the number of memberships is limited it may be necessary to purchase a seat from a retiring member, and, further, to secure the approval of the governing body of the Stock Exchange. In 1936 an average price of $130,857 was paid for the privilege of securing a membership on the New York Stock Exchange. Memberships on other exchanges do not involve such enormous outlays. In addition to the cost of a seat, capital is required to procure necessary equipment, to open branch offices, to meet the heavy expenses of operation, and to finance the purchase of securities for customers.

Organization of a Stock Broker's Office

At the head of a stock brokerage establishment doing business on the New York Stock Exchange are the partners, one of whom must be the owner of a Stock Exchange seat. These men are responsible for the business, are entitled to all the profits, and assume all the losses. Problems involving the financing of transactions, care of securities, and execution of customers' orders must be settled by them. Errors of judgment often prove costly, and the members of the firm must bear in mind that each partner is responsible for firm debts.

Many brokerage houses have a boardroom, which is situated near the order department. Upon one of the walls of this room is a large quotation board. As sales are made upon the floor of the Exchange, quotations are received over an instrument known as a ticker. As the selling prices appear on this ticker, they are posted on the quotation board. Customers of the house who are in the boardroom can follow the market very closely and are in an advantageous position to buy or sell securities immediately. Sensing the trend of the market, they can either purchase or sell by giving instructions to an order clerk or customers' man. These orders are sent to the order department, which forwards them to the floor of the Exchange, where the order is

executed by the firm's floor broker or by someone designated to act as his representative.

Upon the execution of an order, the details are sent to the purchase and sales department, where entries are made to record the transactions. This department is a subdivision of the accounting department. Other duties of the accounting department consist in keeping an accurate record of all transactions which have any bearing upon the financial or operating condition of the firm.

Another important department is the cashier's. In this department all cash is received and all disbursements made. It must also keep a record of all securities received and their disposition.

Problems of a Broker

The operations of a brokerage house give rise to many problems. The more important of these are:

(*a*) *Dual Accounting*

The accounting in a brokerage office can be divided into two parts, financial accounting and security accounting. The financial transactions are recorded subject to the rules of journalizing and control. Securities are not subject to these rules, and other methods must be devised for properly recording them. A broker must know at all times what securities he is holding, to whom they belong, and where they are. He must also know what securities are owing to him and by whom, and what he owes and to whom. Hence, in every brokerage transaction, his books must record both the financial details and those connected with the securities involved.

(*b*) *Clearing Securities*

Under the rules of the New York Stock Exchange, securities sold, with certain exceptions, must be delivered before 2:15 P.M. the second full business day following. As the daily sales are very heavy, individual delivery of securi-

ties is a very difficult task. In order that this burden might be lightened, the New York Clearing House was established in 1892. Later this organization changed its name to the New York Stock Clearing Corporation. Members of the Exchange who are also members of the Clearing Corporation can "clear" their securities subject to the rules and regulations of the Stock Clearing Corporation. Each broker forwards to the Clearing Corporation, subject to certain limiitations, statements of securities bought and sold, the names of the other brokers to the transactions, and security balances to be delivered or received. Speed and accuracy are essential in the preparation of these statements, as they must be forwarded to the Clearing Corporation within a few hours of the closing of the Exchange.

(*c*) *Reconcilement of Brokers' and Branch Offices' Accounts Current*

Many brokerage houses in New York maintain branches in the larger cities. All orders from these branches which are executed are charged or credited to the account of the branch office giving the order. This account is in reality a control account of the customer's ledger of the branch office. At intervals these are reconciled and differences are adjusted. This reconcilement initiated by the home office is made by the branch office.

(*d*) *Financing Transactions*

Arrangements must be made by the broker for meeting his obligations; that is, he must finance his transactions. It may be necessary for him to secure cash by pledging securities as collateral. The amount of money which a broker may secure from a bank for the purpose of purchasing or carrying stocks registered on a National Securities Exchange is subject to regulations of the Board of Governors of the Federal Reserve System. Regulations U and supplements thereto contain provisions regarding the amount of a loan in relation to the value of collateral on which the loan is

being secured.[1] The maximum loan value may be changed from time to time by supplemental regulations. A broker in need of funds may loan securities to other brokers who must make deliveries on contracts. The broker borrowing securities in this manner pays for the securities thus obtained; the broker loaning securities secures funds to finance his commitments. The problem of financing involves more than cash financing: it involves security financing. If a broker has sold securities for a customer of an out-of-town branch it may be impossible to obtain the securities sold in order to make delivery. Or if the sale was executed for a customer who hopes to repurchase at a lower price at some future time, the security sold will not be delivered by the customer to the broker, as the customer is not in possession of the security. Arrangements must be made by the broker to obtain stock in order to make delivery. If the broker is in possession of identical securities he may use them for this purpose, or he may be able to substitute securities in a collateral loan and thus secure the necessary certificates, provided he has on file specific written consent of his customers giving him the privilege of loaning the securities or provided that the bank is willing to make the substitution in the collateral loan. If either of the above procedures fails to yield the securities, they will have to be borrowed from other brokers. Arrangements for borrowing stock can often be made on the floor of the Exchange after the market closes. Brokers desirous of borrowing and lending securities assemble and make their needs known. Securities thus borrowed and loaned are regarded for clearing purposes as purchases and sales.

(*e*) *Protection of Investment*

The financing of transactions for customers involves in

[1] Effective May 1, 1936, the maximum loan value of any stock is limited to 45 per cent of its current market value, as determined by any reasonable method, except that loans to brokers may amount to a maximum of 60 per cent of market value provided the stock is registered on a national securities exchange and that securities are being carried for the account of customers.

many instances the use of a broker's own funds. A broker must make arrangements to finance accounts carried on margin. This may require the use of the broker's own funds. If through market fluctuations a customer's margin is reduced, the broker's margin of safety is also reduced. In past years, many brokers faced the possibility of loss through sudden falls in market values which wiped out the customers' margins. This hazard has been greatly reduced because under present regulations a customer operating on margin is required to deposit or provide for a margin of 55 per cent of the market value securities purchased.[1] If this margin is impaired, the broker may request the customer to provide additional margin. If the additional margin is not forthcoming from the customer, the securities held can be sold, if the customer is long, or purchased, if the customer has sold short. Constant vigilance is essential on the part of the broker in protecting himself from losses arising through insufficient margin. Clerks are constantly comparing the margin with the market value of securities in customers' accounts. Although customers are required to provide a margin of 55 per cent against initial purchases under federal regulations, there is nothing to prevent a broker from requesting his customers to put up a greater percentage than 55. Customers purchasing on margin would tend to gravitate toward those firms which required a lesser margin and consequently margin requirements are generally fixed at 55 per cent of market values. A customer opening a new account would be required to provide $5500 of margin if he were to purchase securities having a market value of $10,000. If as a result of subsequent operations the customer were to build up an equity in excess of the required margin, the excess of securities in his account would have to be segre-

[1] Regulation T issued by the Board of Governors of the Federal Reserve System, pursuant to the requirements of section 7 and 8 (a) of the Securities Exchange Act of 1934, applies to the extension and maintenance of credit by members of national securities exchanges and to brokers who act through such members.

gated by the broker and placed in "safekeeping." In the event that the margin became impaired some of the securities held in safekeeping could be withdrawn and replaced in the account as collateral. The account title used to designate these securities is known as "Excess Margin" account or "Securities Segregated for Excess Margin."

(f) Determination of Account Balances

In preparing customer's statements, security balances as well as money balances must be shown. Each account must be analyzed in order that interest may be calculated properly. Debit money balances and long security balances generally appear on the same side of a customer's statement; credit money balances and short security balances are placed together. It is possible, however, to have many combinations of money and security balances. For example, a customer may have a debit money balance, and at the same time be both long and short of securities, or he may have a credit money balance and be long or short of securities, or both.

CHAPTER XVI

PURCHASE AND SALE OF SECURITIES

In connection with the operations of a broker, speed is of paramount importance. Minutes count. Orders received are rushed to floor brokers on the Exchange and are immediately executed if the market permits. Customers must be notified at once if possible. Transactions must be recorded and financed without delay. Statements of securities to be cleared must be sent to the Clearing Corporation. The necessity for all this speed and activity can be traced to the orders received for the purchase and sale of securities, which will now receive our attention.

Procedure of Buying and Selling

When the brokerage house receives an order it is recorded upon a Buy or Sell order form. This order form shows the security to be purchased or sold, the number of shares, the price to be received or paid, and the length of time the order is to remain open. In determining the price the customer may fix a definite figure, or he may state that his order is to be executed at the market, that is, at the market price prevailing at the time the securities are bought or sold. The order placed may remain open only for a day, or it may continue until canceled.

The order is telephoned to the brokerage firm's exchange telephone clerk, and the firm's floor trader proceeds to purchase or sell the securities in accordance with the order. In doing so he goes to the "post" on the floor of the Exchange where the particular security in question is traded in. There sales and purchases are made orally, and at the time of sale or purchase no written contract is drawn up. Each

broker makes a record of the transaction on his broker's pad, and sends notice to his office by telephone. Upon receiving a report of the transaction, clerks in the brokerage office enter it upon the books of the firm. They also prepare "Receive from" or "Deliver to" Tickets, which are sent directly to the other broker involved or indirectly through the Night Clearing House. The main purpose of these tickets is to effect a comparison and thus aid in the adjustment of differences which occasionally arise when brokers transact business in an unusually heavy market. These tickets are called Clearing Tickets and are of importance in the process of clearing, which will be described later.

The unit of trading in stocks is usually 100 shares. If the stock whose shares are listed is closely held, or is exceptionally high in price, the unit of trading may be less than 100 shares. Although the unit of trading is 100 shares a very large percentage of the stocks purchased or sold by brokers for customers' accounts is in odd lots, that is, less than 100 shares. Orders of this type are forwarded to odd lot houses which specialize in combining the odd lots of many customers and subsequently buying or selling the shares of stock on the basis of the unit of trading. These odd lot brokers make it possible for the man of small means to purchase or sell a few shares of stock or to diversify his holdings. The price paid per share by a customer who purchases a few shares of stock is either $\frac{1}{8}$ or $\frac{1}{4}$ in excess of the market price prevailing at the time of execution of the order. The amount received if a sale is made is likewise slightly less than that which would be received if the sale were made in the recognized unit of trading.

Securities which have been purchased and sold, for every purchase involves a sale by someone else, are classified as cleared and non-cleared securities. Cleared securities are those which may be cleared or adjusted by the Night Clearing House. However, all deliveries of cleared securities may be made through the Central Delivery Department of the Day Branch of the Stock Clearing Corporation. Cleared

securities which are bought and sold for cash, delivery to be made the same day, are handled by direct delivery. But by far the greater portion of securities are sold "regular way," that is, delivery of them is to be made before 2:15 P.M. on the second full business day following the day of trade. Purchases and sales made on Friday and Saturday are cleared on the following Tuesday, if it is a business day. In those instances where securities are not being delivered for cash or in the regular way, special arrangements are made as to the time of delivery. A large brokerage house in the course of a busy day may buy and sell thousands of shares of stocks of many corporations. If these shares bought and sold are stocks which cannot be "cleared," then actual delivery of shares sold must be made and all shares purchased must be received. The settling for these stocks is a slow process.

After an order has been executed, a notice is sent by the broker to the customer, advising him of the purchase or sale; it will show the customer's indebtedness for the securities which have been purchased, or the credit for the securities which have been sold. A charge is made for the services rendered by the broker. The following table gives the broker's charges on stocks and bonds traded on the New York Stock Exchange at the present time.

On Stocks:

Under 50¢ per share	May be mutually agreed upon
50¢ per share and above, but under $1	Not less than 3¢ per share
$1 per share and above, but under $10	Not less than 7½¢ per share
$10 per share and above, but under $25	Not less than 12½¢ per share
$25 per share and above, but under $50	Not less than 15¢ per share
$50 per share and above, but under $75	Not less than 17½¢ per share
$75 per share and above, but under $100	Not less than 20¢ per share
$100 per share and above, but under $200	Not less than 25¢ per share
$200 and over	Not less than 30¢ per share plus 5¢ per share for each $50 or fraction thereof above $250.

On Bonds: (per $1000 of par value)

On railroad, industrial, and public utility bonds, selling at more than 10 per cent of par value, $2.50.

On railroad, industrial, and public utility bonds, selling at 10 per cent or less of par value, $1.25.

On government, state, municipal, and short-term bonds, as per mutual agreement, usually $1.25.

The commission charge is added to the cost of purchases and is deducted from the amount realized on sales. In addition to the commission, the seller of stocks must pay a state tax and a federal tax on each share sold as well as a Security Exchange Commission Registration tax or fee.[1] Although no state tax is levied on bonds, the Federal Government imposes a documentary tax of four cents for each $100 of face value on each bond sold unless exempt.

If stocks or bonds purchased are being bought outright, then the broker will receive from his customer a check for the full amount of the indebtedness. If, however, the stock is being purchased on margin, the customer takes—to put it in terms of Wall Street—a "position in the market." If he buys for the purpose of later selling at a profit, he feels that business conditions are such that an upward trend in a particular stock, or in the market in general, will take place. If the customer believes that the future course of the market, or of a particular stock, will be downward, he will order his broker to sell stock with the hope of being able ultimately to purchase at a lower figure. In either case he will be requested to make a deposit in cash or securities. This deposit is known as a margin and is made to protect the broker from loss in the event that security prices move in the direction opposite to that which is anticipated.

The difference between the cost of securities bought and the money margin received represents the extent of financing for which arrangements must be made by the broker. He can either pay this difference himself or pledge the securities purchased with his bank or with another broker as the basis

[1] Although the tax is levied on the seller, purchasers of odd lots also pay taxes at the rates designated. (See Ex-Clearing House Blotter, page 222.)

of a loan. If the purchase is financed through a bank, both the broker and the bank are amply protected. The broker is indebted to the bank, but the bank is fully protected because it has, as security for any loan made, stocks or bonds having a market value in excess of the amount of the loan. The broker by paying off his loan will secure possession of the securities pledged with the bank; if necessary he can sell them to protect himself from loss. The broker's margin of safety is the market value of the securities held plus the margin received, less the indebtedness of his customer. The customer takes the risk, and to him belong all the profits or losses. The customer will be asked to sign a contract containing many clauses, one of which authorizes the broker to loan and repledge the customer's securities separately or together with other stocks and/or securities.

Purchase of Securities on Margin

As stated previously, securities are often purchased with the hope that they will rise in value, enabling the holder thereof to sell at a profit. If the securities are not paid for in full, the purchaser turns over some money or acceptable securities to the broker. For the purpose of making clear the nature of the charges and credits recorded, the following assumed transactions will be expressed in debit and credit form:

(*a*) On March 1, A. Stevens orders his brokers, West and Scott, to purchase at the market 100 shares of U. S. Steel common. The brokers execute the order and advise A. Stevens that the shares were purchased at $120.

(*b*) A. Stevens deposits with the brokers his check for $6,600 on the same date.

(*c*) On March 4, the brokers pledge the stock purchased with the X National Bank, as part of the security for their loan of $100,000. This loan of $100,000 was made to cover the purchases of several customers. It bears interest at the rate of 2 per cent.

(*d*) On March 20, owing to a decline in the market,

A. Stevens is requested to deposit additional collateral. The request is complied with, and the brokers receive from A. Stevens $2000 of $3\frac{1}{2}$ per cent Government Bonds.

(*e*) In order to prevent impairment in the collateral pledged with the X National Bank, the Government Bonds are forwarded to the bank as additional collateral.

(*f*) On March 30 a statement is rendered to A. Stevens showing interest charged him at the rate of 5 per cent.

The debits and credits for the above are as follows:

(*a*)	A. Stevens...............	$12,025.00	
	Cash..................		$12,000.00
	Commission............		25.00
	For the purchase of 100 shares of U. S. Steel common at $120 per share.		
(*b*)	Cash....................	$6,600.00	
	A. Stevens.............		$6,600.00
	Cash margin received.		
(*c*)	Cash..................	$100,000.00	
	Borrowed money......		$100,000.00
	Loan from X National Bank, various securities pledged as collateral.		
(*d, e*)	These transactions do not involve any changes in the financial status of the parties concerned. The security or position records, however, would be affected, and will be considered later.		
(*f*)	A. Stevens..................	$21.85	
	Interest....................		$21.85
	Interest for the month of March on balance due.		
(*g*)	An entry would also be made to record the interest due the bank on the outstanding loan.		

The many orders executed during the course of a day by a broker make impracticable the separate journalizing of each transaction. The actual bookkeeping entries will be discussed in a following chapter.

The "Short" Sale

Having discussed the procedure of buying, we are now ready to consider that of selling. Sellers may be investors or speculators who, having purchased in the past, desire to

dispose of their securities for some reason. Again, they may be speculators who believe that stock prices will move downward, and sell "short." A short seller is a person who sells that which he does not have, with the hope of being able to buy it at a lower future price, and thereby realize a profit. The operations involved in a short sale can best be understood by making journal entries for a hypothetical case. Let us assume on September 1 M. F. Daniel requests his brokers, Frazier and Company, to sell in the market 200 shares of American Telephone and Telegraph Company stock at 180. The order is immediately executed, delivery of the securities to be made September 3. The broker having been advised that the transaction is a short sale, proceeds to borrow securities from Brown and Company in order to make delivery. In borrowing securities from Brown and Company, Frazier and Company agree to pay $36,000 for the securities borrowed, funds to be repaid to Frazier and Company upon return of the securities. The customer, M. F. Daniel, gives the broker a check for $10,000. On September 16 the broker buys for the account of the customer 100 shares of the telephone stock previously sold, at 170. These transactions may be recorded in debit and credit form as follows:

(a) Cash	$36,000.00	
M. F. Daniel		$35,931.28
Commission		50.00
Taxes		18.72
To record the sale of stock at 180, together with commission and taxes.[1]		
(b) Stocks borrowed	$36,000.00	
Cash		$36,000.00
To record the borrowing of stock from Brown & Co.		

[1] New York State tax rates are 3 cents per share on stocks selling under $20 per share and 4 cents per share on stocks selling at $20 per share or over, regardless of par value. The U. S. Revenue Act of 1932 provides in the case of shares selling under $20 for the levying of a tax of 4 cents on each $100 of par or face value or fraction thereof, and if the shares are without par value the tax to be collected is at the rate of 4 cents per share; if, however, the

(c) M. F. Daniel	$8.00	
Taxes		$8.00

To record the Federal Tax on shares borrowed for the account of M. F. Daniel.

(d) Cash	$10,000.00	
M. F. Daniel		$10,000.00

To record receipt of cash from M. F. Daniel.

(e) M. F. Daniel	$17,025.00	
Cash		$17,000.00
Commission		25.00

Purchased 100 shares of American Telephone and Telegraph at 170.

The Customer's Statement

At the end of each month it is customary for brokers to send to their customers statements of their accounts. Every transaction affecting a customer's account during the month is immediately posted to the ledger account and to the statement. A glance at either of these during the month will reveal the exact status of the customer's relation with his broker. All financial and security transactions of the account are shown. There appear, in the order of their occurrence, purchases of securities, receipts of margins, sales of securities long, sales of securities short, purchase of securities to cover short sales, and charges and credits involving interest. A customer's statement also shows credits for dividends received by the broker on stocks belonging to the customer. Dividends paid on stocks which have been sold short are charged to the customer's account because the broker must reimburse the party who loaned the shares. At the end of the month the account is balanced and all money and security balances are brought down.

selling price is $20.00 or more, the tax collected shall be at the rate of 5 cents per $100 par or face value and if no par value then at the rate of 5 cents per share. A customer must also pay the federal tax of 4 cents per $100 par or 4 cents per share, if no par, on all stocks borrowed for his account. The Securities Exchange Commission Registration tax on security sales is at the rate of one cent for each $500 of market value or fraction thereof.

In determining the interest to be charged the customer, consideration must be given to the interest paid by the brokerage house for the money used in financing its customers' transactions. This may be either greater or less than 6 per cent, depending upon the general condition of the money market. If the average is greater than 6 per cent, customers may be charged 6 per cent interest plus an additional amount called either a commission or a carrying charge.

The following statement (Form XXXVII) is typical of the statements rendered to customers each month. It will be noticed that the account shows purchases, short sales, and other transactions.

Analysis of a Customer's Statement

The first transaction shown on the statement reveals the indebtedness of the customer for the purchase price of 100 shares of U. S. Steel common. To the purchase price there has been added the commission due the broker. The customer gave the broker a check for $7000 to meet margin requirements. On March 7, the broker sold at the request of his customer 100 shares of Pennsylvania Railroad common stock, crediting the customer with $4528.40 proceeds after deducting commission of $15, transfer taxes of $6.50, and S.E.C. registration fee of 10 cents. On the 8th the customer delivered the securities sold for his account on the previous day. On the 12th and 15th additional purchases were made and additional margin obtained from the customer. There were no more purchases or sales until the 27th, when the broker sold short 100 shares of Chesapeake and Ohio for the account of the customer. This stock was sold for $5800. After deducting commission of $17.50, taxes of $6.25, and S.E.C. registration fee of 12 cents, the net proceeds of $5776.13 was credited to the account of the customer. U. S. Bonds were received as margin. Because the sale was a short sale the customer also pays a federal tax on shares borrowed. (See note, page 197.) Interest was

Mr. John Jones
597 Fifth Ave.
Philadelphia, Pa.

In account with
WALL STREET & CO.
1200 Wall St., New York

Date	Shares, etc. Bought or Received	✓	Shares, etc. Sold or Delivered	Description	Price	Debits	Credits	Balance Italicized Figures Denote Credits	Date
1937 Mar.				Securities as per previous Statement Balance					
2	100			U. S. Steel	119	$11,925.00		$11,925.00	
2				Cash Received			$7,000.00	4,925.00	
7			100	Penna. R. R.	45½		4,528.40	396.60	
8	100			Penna. R. R.	R				
12	100			Atlantic Refining	35½	3,565.00		3,961.60	
12	100			United Gas Imp. Co.	14	1,412.50		5,374.10	
15	200			Consol. Edison	41	8,230.00		13,604.10	
15				Cash Received			5,000.00	8,604.10	
27			100	Ches. & Ohio R. R.	58		5,776.13	2,827.97	
28	2M			U. S. Government 3½	R				
31				Interest, 6%		30.07		2,858.04	
31				Balance					
				Long					
	100			U. S. Steel					
	100			Atlantic Refining					
	100			United Gas Imp. Co.					
	200			Consolidated Edison					
	2M			U. S. Government 3½					
				Short					
			100	Ches. & Ohio R. R.					

Kindly preserve this STATEMENT for use in making up your Income Tax Return

Report errors within 10 days or we shall assume account to be correct.

E. & O. E.
WALL STREET & CO.

FORM XXXVII
FORM OF CUSTOMER'S STATEMENT

charged to the account at the rate of 6 per cent. At the end of the month security and money balances were brought down. Tax deductions were calculated on the basis of $50 par for Pennsylvania Railroad and $25 par for Chesapeake and Ohio stock.

Calculation of Interest

It will be remembered that securities which are purchased on margin must be financed by the broker and that in performing this service he may advance a portion of his own funds and pledge the securities purchased as collateral for a money loan equal to the amount he has been advanced. The customer must pay interest on this advance. If instead of purchasing the customer decides to sell short, a credit money balance arises in his account. If the broker controls stock similar to that sold short, delivery can be effected and the proceeds of the sale obtained. If he does not have the stock to deliver, he must borrow it from some other broker, who will demand that he be advanced the loan price for it, this sum to be given back at the time the stock is returned. No interest is credited to a customer's account because of short sales credits. Bearing this in mind, interest would be calculated on the following amounts shown on the customer's statement, appearing on page 199.

Debits			Credits		
Mar. 2	U. S. Steel.....	$11,925.00	Mar. 3	Cash...........	$7,000.00
12	Atlantic Ref'g..	3,565.00	7	Proceeds Penna. R. R.........	4,528.40
12	U. Gas. Imp....	1,412.50	15	Cash...........	5,000.00
15	Consol. Edison.	8,230.00			

CHAPTER XVII

CLEARING OF SECURITIES

The Stock Clearing Corporation

The Stock Clearing Corporation operated in connection with the New York Stock Exchange is an organization formed to expedite the delivery of securities bought and sold by its members. The Corporation operates both a Night Branch and a Day Branch.

In order that uniformity of procedure may be followed, the Stock Clearing Corporation has promulgated rules and regulations for the guidance of its members in their use of its facilities. It specifies the securities which will be cleared. It establishes the clearing prices to be used in making settlements and states the time limit for the receiving by it of the reports of securities to be cleared. In order to reduce error to a minimum, it has provided that its members use certain forms and follow a given procedure in their work preparatory to the actual clearing of securities. This uniformity of procedure followed by brokers in their clearing activities has had a considerable influence in shaping the accounting systems found in the various establishments. The activities of the Night Branch and the Day Branch will now be discussed.

Night Branch Procedure

When notified of the completion of a transaction upon the floor of the Exchange, a brokerage firm prepares a comparison ticket, called a Receive Ticket, if the stock has been purchased, and a Deliver Ticket (Form XXXVIII), if the stock has been sold. For every transaction, therefore,

Form M4

No:........

NEW YORK......................193

STOCK CLEARING CORPORATION (Night Clearing Branch)

FOR ACCOUNT OF

WALL STREET & CO.

Receive from..

Deliverer's Name and Number Stamp

Date	Line No.	Receive From	Shares	Security	Price	1000s	100s	Cts
	Receiver's							
	Deliverer's	Give Up						

RECEIVE TICKET

Form M5

No:........

NEW YORK......................193

STOCK CLEARING CORPORATION (Night Clearing Branch)

FOR ACCOUNT OF

WALL STREET & CO.

Deliver to..

Receiver's Name and Number Stamp

Date	Line No.	Deliver to	Shares	Security	Price	1000s	100s	Cts
	Deliverer's							
	Receiver's	Give Up						

DELIVER TICKET

FORM XXXVIII

COMPARISON TICKETS

there will be a Receive Ticket made out by the purchasing broker and a Deliver Ticket made out by the selling broker. These tickets are taken by messengers to the distributing department of the Night Branch, where they are sorted and placed in locked boxes containing respectively the brokers' numbers. Hence all tickets made out by the selling brokers will be placed in the boxes of the buying brokers, and all made out by the buying brokers will be placed in the boxes of the selling brokers. Messengers from each firm collect the tickets left at the distributing department for their respective firms. Upon receipt of these tickets from other firms, a broker can compare his record of purchases and sales with the Receive and Deliver Tickets left for him by other brokers. As each sale involves a purchase a double comparison is made. If the records of the two parties to a transaction do not agree and no immediate adjustment is made, the transaction will be eliminated from the report of stocks to be cleared which is to be sent to the Night Branch. The transaction in dispute may be adjusted later and settlement made subsequently.

The Receive and Deliver Tickets are prepared from the record of the transactions which are entered on a book of original entry known as a "blotter." Purchases are recorded on the "To Receive" side and sales on the "To Deliver" side of the blotter. A Clearing Sheet (Form XXXIX) containing a record of the purchases and sales to be cleared is also prepared. This Clearing Sheet is balanced by the broker, both security and money balances being shown. A copy of the Clearing Sheet will be forwarded to the Night Branch of the Clearing Corporation, together with Stock Balance Tickets (Form XL). The Stock Balance Tickets indicate the balance of each security which is to be delivered or received.

In clearing securities provision is made for the use of settlement prices as previously mentioned. Regardless of the price at which a stock was bought or sold by a broker, he must use the settlement prices which have been estab-

1st Ex.________ 2nd. Ex.__________ STOCK CLEARING CORPORATION (NIGHT CLEARING BRANCH) NO.________ 1st Ck.________
1st Ck.________ 2nd. Ck.__________ 2nd. Ck.________

NEW YORK,______________193 OFFICE ADDRESS______________________________ CLEARING SHEET OF WALL STREET & CO.

Receive From	Shares	Security Print N.Y.S.E. Abbreviations in Capitals	Price	N.B. Col.	Value	Deliver To	Shares	Security Print N.Y.S.E. Abbreviations in Capitals	Price	N.B. Col.	Value
1						51					
2						52					
3						53					
4						54					
5						55					
6						56					
21						71					
22						72					
23						73					
24						74					
25						75					
		Totals						Totals			

FORM XXXIX
CLEARING SHEET

STOCK CLEARING CORPORATION (NIGHT CLEARING BRANCH)

THE UNDERSIGNED WILL RECEIVE THE FOLLOWING BALANCE OF STOCK AT THE DELIVERY PRICE

Shares	Stock	Receive From	

DATE

_______________ NAME WALL STREET & CO.

STOCK CLEARING CORPORATION (NIGHT CLEARING BRANCH)

THE UNDERSIGNED WILL DELIVER THE FOLLOWING BALANCE OF STOCK AT THE DELIVERY PRICE

Shares	Stock	Deliver To	

DATE

_______________ NAME WALL STREET & CO.

Form XL

STOCK BALANCE TICKETS

lished. To illustrate the operation of the settlement price, assume that Broker A purchased, on September 21, 1000 shares of Lehigh Valley, 400 of which were bought from Broker B at a price of \$16.00 per share or a total of \$6400.00, and 600 from Broker C at a price of \$18.00 per share or a total of \$10,800.00. Further assume that Broker A sold on the same day 800 shares of Lehigh Valley to Broker D at \$17.50 per share for a total of \$14,000.00. As a result of these transactions the net cash outlay of Broker A will be \$3200.00 (\$6400.00 plus \$10,800.00 minus \$14,000.00). As his contract arrangements with other brokers obligated him to disburse \$3200.00 in excess of what he is to receive, he is entitled to a credit of \$200.00 if he must settle for the 200-share balance at \$17.00 per share. This credit will be offset by debits on the Clearing Sheets of other brokers. As these money differences appear upon practically all Clearing Sheets, owing to the use of a settlement price for each stock, a Debit or Credit Memorandum (Form XLI) will be attached to each Clearing Sheet forwarded to the Night Branch. Formerly these money differences, arising through the use of settlement prices, were adjusted by forwarding a check to or drawing a draft upon the Clearing Corporation. It will be noticed that the Debit or Credit Memorandum forwarded authorizes the Day Branch to charge or credit the account of the broker.

Upon receipt of the Clearing Sheets with the accompanying Stock Balance Tickets and Debit or Credit Memorandum by the Night Branch, the actual procedure of clearing securities begins. Employees examine and check the tickets against the clearing sheets and prove the balances of securities to be delivered and received. For each security being cleared, an Allotment Sheet is prepared which shows the number of shares each broker is to receive or deliver. Of necessity the total to be received must equal the number to be delivered. Brokers who have security balances to deliver are advised of the names of the brokers to whom they must make delivery. Brokers who are to receive

THIS FORM MUST BE FILLED OUT IN INK

Form M 13

DEBIT MEMORANDUM

STOCK CLEARING CORPORATION (Night Clearing Branch)

Memorandum of DEBIT cash balance resulting from
Night Clearing sheet dated......................*Amount* $........................
In settlement of above amount, charge to
Day Branch account of the undersigned. ______________________________

Name and Number stamp of Clearing Member

FORM XLI
DEBIT MEMORANDUM

THIS FORM MUST BE FILLED OUT IN INK

Form M 13 A

CREDIT MEMORANDUM

STOCK CLEARING CORPORATION (Night Clearing Branch)

Memorandum of CREDIT cash balance resulting from
Night Clearing sheet dated......................*Amount* $........................
In settlement of above amount, credit to
Day Branch account of the undersigned. ______________________________

Name and Number stamp of Clearing Member

FORM XLI
CREDIT MEMORANDUM

securities are advised of the names of the brokers from whom they are to receive securities. Formerly these securities were delivered directly by messenger. At the present time a broker forwards to the Day Branch securities which he must deliver. The Day Branch by crediting or debiting brokers' accounts for money balances on the clearing sheets and by providing for centralized delivery of securities has greatly simplified the process of clearing.

The Day Branch

The Night Branch of the Stock Clearing Corporation can render very little service to the broker who buys securities different from those which he sells, or whose transactions are of an ex-clearing nature. The Day Branch, however, can help him. The Day Branch is primarily a money-clearing rather than a security-clearing medium. Prior to the formation of the Day Branch, payment was required upon the delivery of securities. Consequently, the person who was to receive securities had to make provision for financing. He could not always depend upon the collections from his own deliveries to meet his obligations. Therefore a great amount of unnecessary certification by banks of brokers' checks resulted. The Day Branch eliminates this unnecessary work by enabling each broker to establish a credit with it. The amount of credit depends upon the amount of money contributed to a central fund which is used by the Stock Clearing Corporation for the granting of loans to members. All securities of both a cleared and non-cleared nature which are delivered are receipted for. The receipts are forwarded to the Day Branch, and the accounts of the brokers are debited with the value of the securities they received and credited with the value of securities they delivered. This eliminates the drawing of a number of checks by each broker for securities received. At the end of the day each broker draws his check for his net indebtedness or receives a check for his net credit. The Day Branch

will also pay off brokers' loans or arrange to clear loans for them. In clearing money balances on securities, the Day Branch obtains from the Night Branch lists of Clearing House securities to be delivered and received, and also obtains from each broker lists of non-cleared securities to be delivered and received.

STOCK CLEARING CORPORATION
(DAY BRANCH)

Clearing No.................. New York,...................... 193...

Firm Name..

We herewith send Check / Credit Memorandum for $.................... which Credit / Charge to our account.

DEBIT					CREDIT		
			Cleared Stocks Actual	1			
			N. B. Stock Cash Balance	2			
			Non-Cleared Stocks Actual	3			
			Non-Cleared Bonds Actual	4			
			Stocks a/c Failure	5			
			Bonds a/c Failure	6			
			Gov't. Bonds a/c Failure	7			
			Marks to Market	8			
			Non-Member	9			
			Loans	10			
				11			
			U. S. Gov't. Actual	12			
			Cr. Memo. (On a/c) Check (On a/c)	13			
			Cr. Memo. (Final) Check (Final)	14			
			Suspense	15			
			Totals	16			

....
Firm Signature

FORM XLII

SUMMARY OF CLEARING CORPORATION DEBITS AND CREDITS

At the end of the day each broker prepares a summary of his Day Branch charges and credits (Form XLII) and forwards it to the Stock Clearing Corporation, together with a check for the balance due, if any. If as a result of the day's activities the Clearing Corporation owes a broker, the amount due is paid by the Clearing Corporation.

By referring to Form XLII it will be noted that the broker debits and credits himself with the value of the stocks and bonds actually cleared. The cash balance, debit or credit, arising as a result of the Night Branch Clearings, is also shown. Stocks and bonds not delivered (Stock *a/c* Bond *a/c* Failure)[1] will be credited if the securities were

This ticket must be given immediate attention and promptly returned.

CREDIT TICKET

Account of Mark to Market

Issued by ....
Name and Number of Clearing Member Issuing Mark

STOCK CLEARING CORPORATION
(Day Branch)

To .... New York ....193......
Name and Number of Clearing Member accepting Mark (Date of Mark)

......................193......
(Date of Contract)

Please Mark to the Market the following Securities

Shares or Bonds	Security	Contract Price	Value

New Contract Price	Value
Net Difference	
Premium or Interest	
Final Amount	

TO STOCK CLEARING CORPORATION:
Credit the within mentioned Final Amount to the account of the above Issuing Member.

....
Clearing Number and Signature of Member accepting above Mark

1

Form XLIII
CREDIT TICKET

to be received, and debited if they were to be delivered. As stocks borrowed or loaned are constantly fluctuating in value, provision is made by the Day Branch for the adjustment of their values. A Credit Ticket (Form XLIII), in quadruplicate, is sent by the lender of stocks or bonds to the borrower if the price of the security borrowed has increased in value. If the borrower decides to accept the

[1] A failure to deliver securities must be adjusted between brokers. Brokers who are unable to receive or deliver securities through misunderstanding of purchase price or for other reasons remove the securities from the Clearing Sheets. If securities are not thus removed, the failure to deliver or receive must be adjusted through the Day Branch by reversing charges and credits.

"Mark" he retains one copy and forwards the other three to the Day Branch, which credits the account of the lender and charges the account of the borrower. If the securities decline in value the borrowing member sends the Credit Ticket to the lender. An acceptance by the lender of the securities is equivalent to a return of the difference between the old contract price and the new, since the Day Branch charges the account of the lender and credits the account of the borrower. The form sent by the broker to the Clearing Corporation also contains provisions for debits and credits arising through special clearances, such as a clearance of rights or warrants, when-issued stock, script, etc., and for any loans made or repaid.

In conclusion it might be stated that the combined activities of the Day and Night Branches of the Stock Clearing Corporation result in the following advantages to its members:

1. Reduction of the number of deliveries through the process of offsetting purchases and sales of the same security and providing for centralized delivery of those not offset.
2. Elimination of cash payments to cover each security received.
3. Clearing of money balances resulting from deliveries and receipts of securities.
4. Establishment of temporary brokerage credits with the Stock Clearing Corporation, thereby eliminating numerous bank certifications which otherwise would be required.
5. Loans and repayments of loans handled directly by the Clearing Corporation.
6. Centralized charges and credits arising through the adjustment of the prices of stocks borrowed or loaned.

The clearing process explained in this chapter applies only to full lots of stocks which are on the list to be cleared. Odd lots of securities cleared necessitate physical delivery on the part of the brokers. The large brokerage houses turn over their odd-lot business to odd-lot houses for execution.

It has become feasible for these houses to arrange for separate daily clearings with the odd-lot house, and to receive and/or deliver the net security balances. This involves the preparation of a separate Clearing Sheet for odd-lot transactions, which will be cleared, not with the Night Branch, but with the odd-lot broker. Brokers holding full memberships on the New York Curb Exchange also clear Curb securities bought and sold through other Curb brokers. The preparation of the Clearance Sheets for odd lots or for Curb securities does not differ materially from the procedure followed in the preparation of Clearance Sheets for the Night Branch of the Stock Clearing Corporation.

The forms and records pertaining to the process of clearing securities should be considered as an integral part of the accounting records which will be discussed in the next chapter.

CHAPTER XVIII

ACCOUNTING RECORDS

THE accounting system of a brokerage house must be designed to provide for the following:

(*a*) A record of each order to buy and sell.
(*b*) A record of each order executed, showing the account, amount, tax, and commission.
(*c*) Kinds of securities purchased and sold.
(*d*) Financing of long and short transactions.
(*e*) Recording the ownership of, location of, and liability for, all securities.
(*f*) The status of each customer's account.
(*g*) The recording of expenses.
(*h*) The recording of both phases of brokerage work, for financial accounting and security accounting. So far as possible, both financial and security records are kept in the same books of original entry, but are separated in the books of final record.

The essential accounting records are:

(*a*) Order Book or Order File.
(*b*) Blotters.
(*c*) Ledgers:

1. General.
2. Customers'.
3. Borrowed and Loaned Books.
4. Security or "Position" or "Stock" Book.

(*d*) Miscellaneous, including:

1. Margin Cards for Customers.
2. Dividend Record.

Order Book or Order File

Upon receipt of an order to buy or sell, a memorandum record will be made out showing number of shares, description of stock, price to be paid, and for whose account. A "Buy" memorandum is shown herewith (Form XLIV).

	QUANTITY	DESCRIPTION	PRICE
BUY	FOR a/c OF		
CONFIRMED			
ENTERED	EXECUTED	CANCELED	

FORM XLIV

BUYING ORDER

If the orders received are written up, they form the Order Book. If not written up, the order is made in duplicate or triplicate, one copy of which is filed; the file then constitutes the Order Book or Record of Orders Received. After being recorded, the order is telephoned to the floor of the Exchange and given to the floor broker for execution.

When the order has been executed, the office is notified and a report is sent to the customer showing his total indebtedness if a purchase has been made, or the net credit to his account if securities have been sold. A Notice of Sale is shown herewith (Form XLV). The purchase notice for-

NEW YORK | A. BROKER & CO. | PHILADELPHIA

Members

New York Stock Exchange; Chicago Stock Exchange; Philadelphia Stock Exchange

1200 WALL STREET, NEW YORK

UPON YOUR ORDER WE HAVE THIS DAY SOLD FOR YOUR ACCOUNT AND RISK: New York..............

To Whom Sold	Quantity	Abbr.	Description	Price

Amount	Interest	Commission	Tax	S. E. C. Fee	Net Amount	Customer

E. & O.-E.

It is agreed between us:—(1) Registration fee of one cent for each \$500 or fraction thereof imposed by the Securities Exchange Act of 1934 on a national securities exchange; (2) if the securities represented by this sale are not in our possession for delivery on the settlement date in negotiable form, they are subject to the Federal Loan tax of 4c for each \$100.00 of par value; (3) that the above and all other transactions are subject to the rules and customs of the New York Stock Exchange, or other exchange or market on which the transaction is made, and their respective Clearing Houses; (4) that the above and all other securities carried in the customer's account or deposited to protect the same are pledged as collateral security for any and all claims and demands that the broker may now or hereafter have against the customer, and, waiving all notice, the sale or purchase of the above or any other securities in the customer's account, or that may be held by the broker is hereby authorized at public or private sale, whenever it is deemed necessary by the brokers for their protection, with the right upon their part of becoming the purchaser thereat free from all trusts, and should there be any loss, the customer agrees to make it good. All such securities may be loaned, repledged or rehypothecated either separately or together with the securities of the brokers or of others and for any sum whatsoever.

A. BROKER & CO.

Per..................

FORM XLV

NOTICE OF SALE—SENT TO CUSTOMER

warded to the customer is similar except that the tax column is omitted.

Blotters

The next step in the accounting process is the recording of the orders executed. The record used for this purpose is known as the Blotter. The Blotter in a brokerage establishment is the main and in many instances the only book of original entry. This loose-leaf device contains records of all purchases and sales of securities listed on the New York Stock Exchange in full lots or odd lots, cleared and not cleared; a record of over-the-counter trades, curb trades, and all stocks borrowed or loaned; a record of the delivery and receipt of securities to or from customers, banks, and other brokers; adjustment of interest and premium charges and credits; and finally all cash received or paid out. Because of the volume and the varied type of transactions recorded, many subdivisions of the Blotter may be in use in a given brokerage house. Thus, one may find:

(*a*) Clearing House Blotters, in which will be recorded all purchases and sales of securities to be cleared through the Night Branch of the Stock Clearing Corporation.

(*b*) Odd Lot Blotters for the recording of odd lot purchases and sales to be cleared through the facilities of one of the larger odd lot brokerage houses.

(*c*) Blotter for Curb securities to be cleared through the Curb Clearing House.

(*d*) Cash Blotter for the recording of cash receipts and disbursements.

(*e*) Cage Blotters for the recording of all securities received or delivered.

(*f*) Blotters for the purchase and sale of securities not recorded in blotters previously mentioned,

and for adjusting journal entries, interest charges to customers, etc.

The number of blotters found in brokerage houses depends upon the size of the establishment, the volume of business transacted, and the type of securities bought and sold. If, as is often the case, only two blotters are in use, they are designated as the Clearing House Blotter and the Ex-Clearing House Blotter. The Ex-Clearing House Blotter thus becomes an exceedingly important book of original entry containing a record of odd lots, cash receipts and disbursements, all other non-cleared stocks and bonds, adjustments, etc.

Recording Transactions on the Blotters

In order to illustrate the procedure followed in recording brokerage transactions, it will be assumed that a given brokerage house records all transactions in two blotters, Clearing House (Form XLVI) and Ex-Clearing House (Form XLVII). Since only purchases and sales of Clearing House securities in certain denominations (usually 100 shares or multiples thereof) are recorded in the Clearing House Blotter, all other transactions will be recorded in the Ex-Clearing House Blotter. During the course of business on December 7 the following transactions take place:

Purchases:

200	shares	Socony Vacuum	@ 19½	for	account	of	A. Long
300	"	Amer. International	@ 15	"	"	"	L. Johnson
350	"	Allegheny Corp.	@ 5	"	"	"	C. Wright
100	"	N. Y., N. H. & H.	@ 8½	"	"	"	B. King
125	"	Lehigh Valley	@ 21	"	"	"	B. King

Sales:

200	shares	Amer. International	@ 17	for	account	of	C. Wright
300	"	Socony-Vacuum	@ 19	"	"	"	L. Johnson
100	"	N. Y., N. H. & H.	@ 8	"	"	"	A. Long
325	"	Allegheny Corp.	@ 4¾	"	"	"	B. King
50	"	Vir.-Carolina Chem.	@ 10½	"	"	"	M. Bowers
100	"	Western Union	@ 75	"	"	"	C. Wright

Assume that the customers who maintain margin accounts with the broker put up the following additional amounts or securities:

L. Johnson	$6000 cash
B. King	2500 U. S. Government Bonds
B. King	1000 cash
C. Wright	3800 cash

One hundred shares of Lehigh Valley were loaned to brokers X and Y.

The sum of $9500 with interest of $128 was disbursed in partial settlement of bank loans.

All securities purchased, with the exception of 50 Allegheny Corporation and 25 Lehigh Valley, are recorded on the "To Receive" side of the Clearing House Blotter. Commission at prevailing rates is added to the purchase price, the total being charged to the customer in the net amount column. All sales, with the exception of 25 shares of Allegheny Corporation and 50 shares of Virginia Carolina Chemical, are recorded on the "To Deliver" side of this Blotter. Securities loaned to other brokers are handled as sales; consequently the shares of Lehigh Valley loaned to X and Y are recorded on the "To Deliver" side. Commissions, taxes, and S.E.C. fees are deducted in determining the net amount due the customer. During the day the Receive and Deliver tickets, previously mentioned, are compared with the Blotter entries. At the end of the day it is noted that 100 shares of Socony Vacuum as well as 100 shares of Western Union have been sold in excess of the number purchased. The broker must deliver these stocks before 2:15 P.M. the second full business day following and accept a credit for them at the settlement price which has been established. Likewise 100 shares of American International have been purchased in excess of the shares of the same stock sold. The broker must receive this stock from some broker designated by the Clearing Corporation. In balancing the Blotter, differences arising from the use of settlement prices and

the arbitrary offsetting of securities purchased at one price against similar securities sold at a different price are noted as cash to be received or cash to be paid and will be entered by the broker on the report to the day branch of the Clearing Corporation (Form XLII). The Clearing Sheets forwarded to the Night Branch of the Clearing Corporation are prepared from the Clearing House Blotters.

Postings to the general ledger are made to the accounts appearing in the "name of customers" column. If postings are made from the purchases (to receive) side of the blotter, the accounts are charged; if from the sales (to deliver) side, the accounts are credited. The commission, tax, and S.E.C. fees column totals have been extended to the last column of the sales (to deliver) side and are to be credited when postings are made.

Odd-lot purchases and sales and security margins are recorded in the Ex-Clearing Blotter. Cash is likewise recorded in this blotter. Payments made are shown on the "To Receive" side. Cash margins and other receipts are shown on the "To Deliver" side. Postings to the general ledger are made in the same manner as the postings from the Clearing Blotter.

As the blotters are the principal books of original entry, postings will be made from them to the various subsidiary records. Customers will be charged or credited for money balances on purchases or sales. Securities long or short will be noted on margin cards. Postings will be made to the stocks borrowed and loaned book, security position ledger, to the box or vault list, transfer record, and record of securities in safekeeping.

The volume of sales and purchase transactions, the type of order, odd lot or round lot, number of customers, whether orders originate primarily in the home office or in the branch offices, etc., must be considered in devising records to be kept. Many additional blotters, as previously indicated, may be in use. Transactions which cannot be recorded conveniently in blotters may be placed in a journal. Some-

A. BROKER & CO.

PURCHASES (TO RECEIVE) DATE December 7th

Name of Person Who Executed Order	Line No.	From Whom Bought	No. of Shares	Abbr.	Description	Price	Amount	Interest	Comm.		Net Amount	Name of Customer	Numbers
		A. & B.	200		Socony Vacuum	19½	3,900.00		25.00		3,925.00	A. Long	
		C. D.	300		American International	15	4,500.00		37.50		4,537.50	L. Johnson	
		C. D.	300		Allegheny Corporation	5	1,500.00		22.50		1,522.50	C. Wright	
		A. K.	100		N. Y., N. H. & H. R. R.	8½	850.00		7.50		857.50	B. King	
		J. K.	100		Lehigh Valley	21	2,100.00		12.50		2,112.50	B. King	
			1,000				12,850.00		105.00		12,955.00		
					Balance to Deliver								
			100		Socony Vacuum	19	1,900.00				1,900.00		
			100		Western Union	74	7,400.00				7,400.00		
					Stock Cash Balance		275.00				275.00		
			1,200				22,425.00				22,530.00		

A. BROKER & CO.

SALES (TO DELIVER) DATE December 7th

Name of Person Who Executed Order	Line No.	To Whom Sold	No. of Shares	Abbr.	Description	Price	Amount	Interest	Comm.	Tax	Net Amount	Name of Customer	Numbers
		A. & B.	200		Amer. International	17	3,400.00		25.00	14.07	3,360.93	C. Wright	
		L. M.	300		Socony Vacuum	19	5,700.00		37.50	10.92	5,651.58	L. Johnson	
		J. K.	100		N. Y., N. H. & H. R. R.	8	800.00		7.50	7.02	785.48	A. Long	
		E. F.	300		Allegheny Corp.	4¾	1,425.00		22.50	21.03	1,381.47	B. King	
		O. P.	100		Western Union	75	7,500.00		20.00	9.15	7,470.85	C. Wright	
		X. & Y.	100		Lehigh Valley	20	2,000.00				2,000.00	Securities Loaned	
			1,100				20,825.00		112.50	62.19	20,650.31		
									105.00		62.19	State & Federal Tax	
									217.50		217.50	Commissions	
					Balance to Receive						20,930.00		
			100		Amer. International	16	1,600.00				1,600.00		
			1,200				22,425.00				22,530.00		

Form XLVI

CLEARING HOUSE BLOTTER SHOWING "TO RECEIVE" AND "TO DELIVER" AND METHOD OF BALANCING

A. BROKER & CO.

PURCHASES (TO RECEIVE) DATE December 7th

Name of Person Who Executed Order	Line No.	From Whom Bought	No. of Shares	Abbr.	Description	Price	Amount	Interest	Comm.	Taxes	Net Amount	Name of Customer	Numbers
		C. D.	50		Allegheny Corp.	5.00	250.00		3.75	3.50	257.25	C. Wright	
		J. K.	25		Lehigh Valley	21.00	525.00		3.13	1.63	529.76	B. King	
					$2500 U.S. Gov. Bonds							B. King	
					Cash-Loan						9,500.00	Money Borrowed	
					" Interest						128.00	Interest Paid	
			75				775.00		6.88	5.13	10,415.01		
					Balance						41,460.75		
											51,875.76		

A. BROKER & CO.

SALES (TO DELIVER) DATE December 7th

Name of Person Who Executed Order	Line No.	To Whom Sold	No. of Shares	Abbr.	Description	Price	Amount	Interest	Comm.	Tax	Net Amount	Name of Customer	Numbers
					Balance						40,420.00		
		E. F.	25		Allegheny Corp.	4¾	118.75		1.88	1.76	115.11	B. King	
		C. D.	50		Virginia-Carolina Chem.	10½	525.00		6.25	3.25	515.50	M. Bowers	
					Cash-Margin						6,000.00	L. Johnson	
					" "						3,800.00	C. Wright	
					" "						1,000.00	B. King	
							643.75		8.13	5.01	51,850.61		
									6.88	5.13	10.14	State & Federal Tax	
									15.01	10.14	15.01	Commissions	
											51,875.76		

Form XLVII
EX-CLEARING HOUSE BLOTTER

times the miscellaneous items are assembled in debit and credit form in this manner.

Ledgers

The General Ledger contains accounts for commissions, profit on investments, loss on investments, interest income, interest expense, salaries, rents, advertising, and other expenses incurred in the conduct of a brokerage business. Accounts are also kept for cash, stock exchange seat, amounts due from customers long, stocks borrowed, investments, furniture and fixtures, accounts payable, amounts due to customers short, stocks loaned, money borrowed, and accounts with firm members. A number of the above accounts are controlling accounts, and separate ledgers showing the details may be kept. Such ledgers are used to record information covering stocks borrowed, stocks loaned, money loaned, investments, and customers' accounts. A Private Ledger often is used, and in it are carried the partners' accounts, the income accounts, and the salary accounts. It is controlled by an account in the General Ledger.

Most of the accounts kept in the General Ledger are self-explanatory. There are, however, a few accounts peculiar to the brokerage business which should be described. These accounts are "stocks borrowed" and "stocks loaned." The "stocks borrowed" account arises because of the borrowing of stock to meet deliveries of securities sold short. When a broker borrows stock, he must pay the loan value to the lender; therefore the transaction can be expressed in journal entry form by debiting stocks borrowed and crediting cash. Stocks borrowed in reality represent money loaned until the stocks are returned. When the return of stock takes place, the broker returning it receives cash from the person from whom he originally borrowed the stock. The account for stocks loaned operates conversely. If one broker borrows stock, another broker must lend. The lending broker receives cash and parts with stock. He therefore debits cash and credits stocks loaned, which is similar to money

borrowed. Stock-borrowing and stock-loaning operations are likewise money-loaning and money-borrowing operations. The liability arising through the receipt of money because of stock loaned is carried in the stocks loaned rather than the money borrowed account. The broker receiving the securities carries an asset account called stocks borrowed.

Securities held by a broker are recorded in a book known as the Security Ledger, Stock Record, or "Position" Book (Form XLVIII). In this book is kept an account for each security held, showing the ownership of it and where it can be found. Each account is divided into two parts, long and short. On the long side is entered the name of the person who is long, that is, who is entitled to demand delivery of the securities upon paying any debit balance due. The short side shows where these securities can be found or who can be called upon to deliver them upon request. A person, or account, can be said to be "long" when, provided certain obligations have been met, it can demand delivery of securities to it. It is short when it must make delivery of securities. On the long side of a security account may appear the names of customers who have pledged security as collateral for long purchases, the names of brokers who have loaned securities to the firm, and the firm's own investment account. On the short side of the same security account may appear the names of customers who have sold short, the names of banks which are holding securities as collateral for loans, the names of brokers to whom the firm has loaned securities, and in case a security is on hand, whether it is in the "box" or vault, or whether it has been sent to the transfer office for transfer to the name of the new purchaser. The way in which a position or security record is kept may be seen from the illustration (Form XLVIII). A separate sheet is used for each stock, and it will be noticed that the number of shares and not values are given. The total of the "longs" for any given stock on any day should balance the grand total of shares in transfer, shares pledged with banks, shares in the broker's

safe-deposit box, shares loaned, etc. The Security Ledger is operated on the principle that for each and every long there must be an equal and corresponding short. This ledger may be termed a general ledger of securities, since the "longs" and "shorts" can be supported by information contained in subsidiary records.

SECURITY: American Telephone and Telegraph									
LONG Date	9/1	9/2							
Philadelphia Office	175	100							
Chicago "	25	30							
Boston "	50	–							
Failed to Deliver	10	–							
Customer A	–	20							
Customer B	60	30							
Broker X	30	30							
etc.									
Total	350	210							
SHORT Date	9/1	9/2							
Box	15	20							
In Transfer	210	55							
Loans	30	30							
Safekeeping	25	25							
Failed to Receive	–	–							
Philadelphia Office	–	–							
Chicago "	–	–							
Boston "	–	10							
Customer C	70	70							
Broker Y	–	–							
Total	350	210							

Form XLVIII

SECURITY LEDGER OR POSITION BOOK

The balancing of the security "longs" and "shorts" is illustrated in the form shown herewith. It will be noted that on September 1 there were 350 shares of American Telephone and Telegraph Company stock, 250 shares of which were held for customers of the firm's three branches and 100

Date	To Whom Loaned	Shares	Description	Price	Amount	Premium	Date Returned
Aug. 31	Brown and Brown	100	U. S. Steel	29	2,900		
Sept. 1	De Lone and Daley	30	Am. Tel. and Tel.	110	3,300		

Form XLIX
STOCKS LOANED REGISTER

BOX RECORD — MONTH—SEPTEMBER

STOCK	1	2	3	4	5	6	24	25	26	27	28	29	30	
Adams Express	17	12												
Allied Chemical	25	10												
American Brake Shoe	12	12												
American Can	200	100												
American Foreign Power	—	50												
American Loco.	—	—												
American Tel. & Tel.	15	20												
American Tobacco	20	20												
American Tobacco B	30	15												
Anaconda	25	10												
Atchison, Topeka & Santa Fe	—	10												
Atlantic Refining	—	—												
Auburn	—	10												

Form L
BOX OR VAULT RECORD

shares of which were held for other customers or brokers. These customers and brokers are said to be long in that they may demand delivery of the shares owned by them, pro-

FAILED TO DELIVER BOOK							
DATE	CUSTOMER	BROKER	Shares	STOCK	Price	AMOUNT	DATE DELIVER
193							
Sept. 1		A. B. Daly Co.	10	Am. Tel. & Tel.	110	1100	Sept. 2
" 1		Brown & Co.	100	Penna R. R.	17	1700	
" 1		Dash & Co.	100	General Motors	15	1500	Sept. 2
" 1		" " "	100	Westinghouse	29	2900	

Form LI
FAILED TO DELIVER RECORD

SEGREGATED SECURITIES				
DATE IN	SHARES	NAME OF SECURITY	FOR ACCOUNT OF	DATE RELEASED FROM
August 24	15	American Can	M. Houston	
Sept. 1	25	Amer. Tel. & Tel.	F. Fredericks	

Form LII
SECURITIES IN SAFEKEEPING

vided any money balances owing by them to the broker are paid. The short side of this security account indicates that 15 shares are in the box or vault, that 210 shares are in process of transfer, that 30 shares have been pledged for

loans, and that 25 shares of stock paid for in full have been placed in safekeeping. A customer is short the remaining 70 shares. Details concerning the longs and the shorts appear in subsidiary records, such as Customers' Ledger, Customers' Margin Cards, Box Record, Securities in Transfer, Segregated Securities, Stocks Borrowed and Loaned Books, Money Borrowed and Loan Register, and records of Failed to Receive and Failed to Deliver. The rulings of some of these

TRANSFER RECORD

DATE IN	SHARES	SECURITY	CERTIFICATE NUMBERS IN	TO WHOM TRANSFERRED	CERTIFICATE NUMBERS OUT	DATE OUT
Aug. 31	100	Amer. Tel. & Tel.				
Sept. 1	100	" " " "				
" 1	10	" " " "				
" 1	15	Allied Chem.				
" 1	100	General Motors				

Form LIII
TRANSFER CARD

records are shown herewith. Details appearing in these records must be in agreement with the various security accounts in the Security Ledger.

Customers' Margin Cards

The ledger account of a customer, although it shows securities bought and sold, and the debit or credit balance at any time, does not show the margin of protection or safety possessed by the broker. A glance at a customer's account does not show the number of points which securities might decline before the debit balance became partly unsecured. A sudden decline in the market, due to unfavorable foreign

news or to news of some disaster, may wipe out customers' margins overnight. Let us assume that a customer buys 100 shares of Norfolk and Western Railroad stock at $260 per share and puts up $14,300 as margin. He is debited with $26,035, which includes commission, and is credited with $14,300, the resultant debit balance being $11,735. Securing this debit balance are 100 shares of Norfolk and Western stock which are worth $26,000. The equity of the customer is the broker's protection. If unfavorable news is received and the market declines severely, so that Norfolk and Western falls to $200, the broker will possess securities worth $20,000 at the market covering a debit balance of $11,735. If it falls to $100, the value of the securities will be less than the debit balance in the account, and the broker will be confronted with the loss of the difference. Such a situation must be avoided, and since the customer's account does not reveal the changing values of collateral securing his account, a means must be found to keep the broker fully informed as to the margin of safety he enjoys. Many brokerage houses therefore use a Margin Card (Form LIV) for each customer. This card shows the debit or credit balance or the equity in the account and the securities acting as collateral. As prices of securities change, notations are made on the card, and the value of the securities and the money balance of the account are constantly compared. As the margin of safety decreases, a call for additional margin is sent to the customer. If this call is ignored, the broker may sell the securities which are long or purchase those which are short. In one of the accompanying illustrations an equity of $1020 is shown. The broker has ample protection, for if the account were to be closed and the securities held sold, a credit balance would remain. If the account of the customer, who is short, were to be closed, he would be charged with the proceeds of 100 shares of U. S. Hoffman and 100 shares of Republic Steel. The equity or margin in the long account is the excess value of securities over the debit balance in the account. In a short account

Customer's Name: J. Jones
Address: 42 Clinton St.

Shares	Description	Market Price	Market Value			Loan Value
100	United Aircraft	30	3000		3 000	
100	U. G. I. (in Safekeeping)			14	1 400	
				Value Securities	4 400	

Refer to	GUARANTY INSTRUCTIONS				
Customer's Agreement	This account guaranteed by ______	Used Value Securities	3000	LOAN VALUE	1980
	Papers on file and approved by ______	Credit Balance		DEBIT BALANCE	1980
Loan Agreement		Debit Balance	1980	EXCESS	
	This account must have sufficient surplus to guarantee the accounts of ______	Equity	1020		
		Requirements			

Customer's Name: L. Klein
Address: 38 Broad St.

Shares	Description	Market Price	Market Value			Loan Value
Shorts						
100	Republic Steel	45	4500			
100	U. S. Hoffman	23	2300			

Refer to	GUARANTY INSTRUCTIONS				
Customer's Agreement	This account guaranteed by ______	Used Value Securities		LOAN VALUE	
	Papers on file and approved by ______	Credit Balance	8925	DEBIT BALANCE	
Loan Agreement		Debit Balance		EXCESS	
	This account must have sufficient surplus to guarantee the accounts of ______	Equity			
		Requirements	2125		

Form LIV
MARGIN CARDS

the equity or margin is the excess of the credit money balance over the market value of the securities short.[1]

Dividend Record

Another record (Form LV), which is minor in character, is the Dividend Record. The dividends payable on any stock must be credited to the accounts of those individuals

Name of Stock | Date Ex-Dividend
Rate | Date Payable

Name or Account	Shares	Amount Debit	Amount Credit
Total			

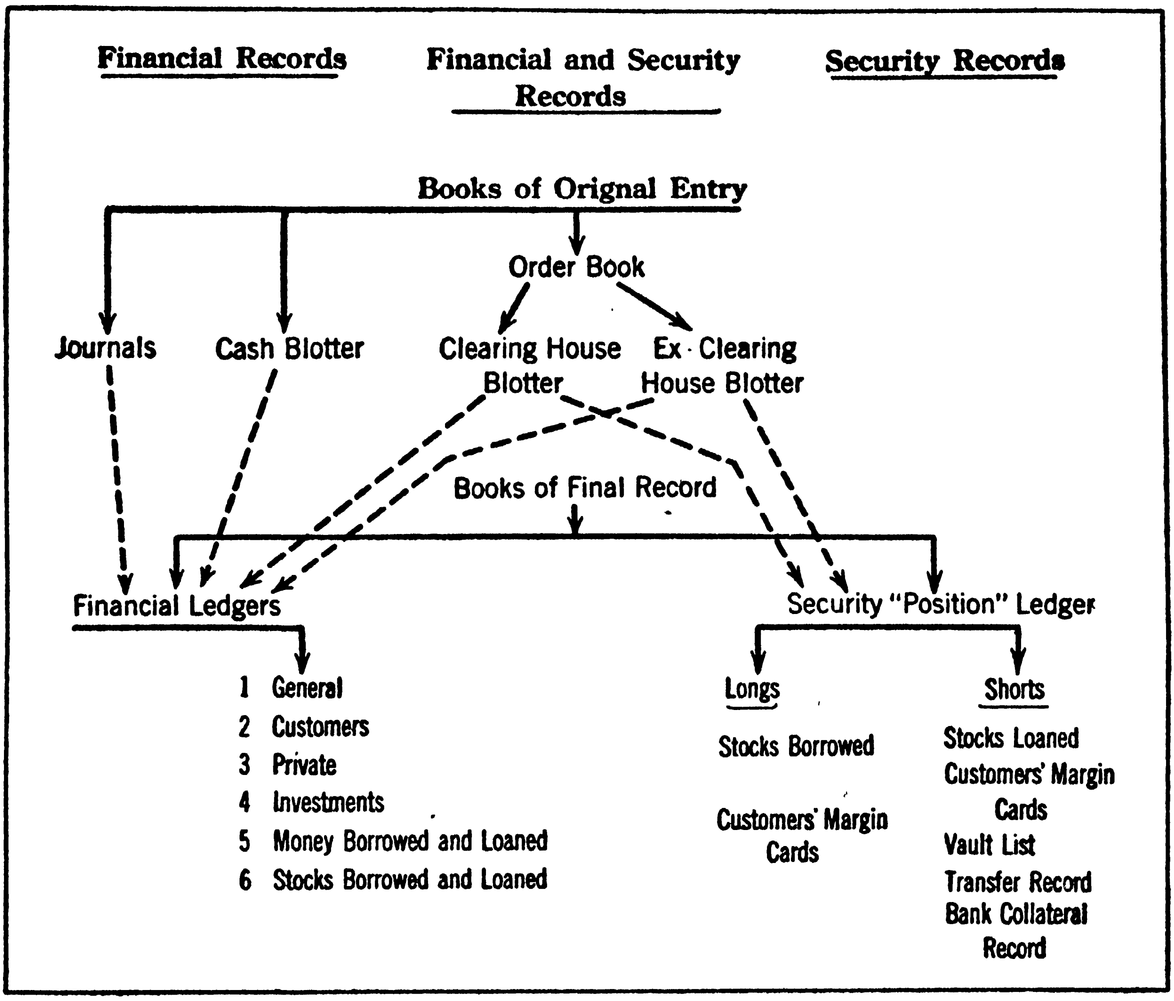
Form LV
DIVIDEND RECORD

who are shown by the Security Ledger to be long, and charged to the accounts of those who are short. A dividend sheet is prepared for dividends paid and is used as the basis

[1] In the long account shown above, the loan value of $1980.00 is 45 per cent of the value of the securities held as collateral. The stock exchange brokerage house under Stock Exchange Regulations calculates margin on $33\frac{1}{3}$ per cent basis. Since the debit balance in the account is $1980.00, the value of the securities to be used need not exceed $3000.00. The excess securities, in this instance, 100 shares of United Gas Improvement Co., are placed in safekeeping. The credit balance in the short account as shown on the margin card is $8925.00 and arises as a result of selling stocks short for $6800.00 plus cash margin of $2125.00 received. Regulation T of the Federal Reserve Board does not specify margin requirements for short sales. Brokerage houses require, in the case of the short sales, a minimum margin of 10 points on all securities selling under $40.00 per share and 25 per cent of value of securities selling at $40.00 or over per share.

for a journal entry crediting those accounts which are long and charging those accounts which are short of the particular securities on which dividends are payable.

Let us now look at the daily transactions of a brokerage



FORM LVI
CHART OF BROKERAGE ACCOUNTING

house in order that we may logically show the entries to be made in the accounting records (Form LVI).

The following transactions of daily occurrence will be briefly discussed:

(1) Purchase and sale of securities which can be cleared.
(2) Purchase and sale of ex-clearing securities.
(3) Receipts of cash from customers.
(4) Borrowing and lending securities.

(5) Borrowing and lending money.
(6) Return of securities borrowed or loaned.
(7) Payment of expenses.
(8) Handling of securities.
(9) Preparation of clearing sheets.

(1) Purchase and Sale of Securities Which Can Be Cleared

These transactions are entered in the Clearing House Blotter if one is used. If one is not used, then postings are made from the original voucher of which the customers' notice is a copy. The Blotter, however, is widely used at the present time. Reference to the Blotter shows that postings are made from the to receive side to the debit side of the accounts listed. From the to deliver side, postings are made to the credit side of the accounts listed. Postings are also made to the credit side of the tax account and the commission account. The commission and tax columns may be posted direct or summarized under the net credit column and then posted. The offsetting amounts needed to balance represent the amounts due to or due by Clearing House members for the stocks bought and sold. Until the settlement is made, the differences represent the net amount due to or due from brokers. Until the Night Clearing Branch makes out its Balance Tickets, a broker does not know to whom he will have to deliver securities, thus increasing his money balance, or from whom he will receive securities, thereby reducing his cash balance. It will be noticed that the Clearing House Blotter contains all the information for the clearing sheets of the brokers.

(2) Purchase and Sale of Ex-Clearing Securities

These transactions are recorded in a blotter ruled similarly to the Clearing House Blotter, and postings are made in a similar manner. All securities of this type must be physically delivered. Settlements of money balances are undertaken by the Day Branch of the Clearing Corporation as already explained.

(3) Receipts of Cash from Customers

Cash receipts and margins are often recorded in a Cash Blotter, or cash book. This book, if used, does not involve any new accounting principles or present any peculiar rulings. The ordinary cash book rulings are therefore sufficient.

(4) Borrowing and Lending Securities

Transactions of this nature are handled as purchases and sales, and appear on the Blotters as such. The accounts used to record these transactions are stocks loaned and stocks borrowed. Borrowing stocks involves loaning money, and loaning stocks involves borrowing money, and therefore settlement must be made on a purchase and sale basis. A record of the stocks borrowed and loaned appears in a Stocks Borrowed and Loaned Ledger or Register.

(5) Borrowing and Lending Money

Members of the Stock Clearing Corporation are at liberty to utilize its services in the borrowing and lending of money and also in the repayment of loans. If the security is satisfactory, the loan is arranged with a banker and the borrower's account with the Clearing Corporation is credited. A credit or loan thus arranged can be used to finance obligations for stocks purchased.

(6) Return of Securities Borrowed or Loaned

If securities which have been borrowed from other brokers are to be returned to the lending broker, entries may be put through the Clearing House Blotters by both brokers and settlement effected through the Night Branch.

(7) Payment of Expenses

Payment of expenses would be recorded through the Petty Cash Book or the Cash Blotter in the usual manner. Vouchers would be submitted and checks would be drawn in payment.

(8) Handling of Securities

A close check must be maintained on securities at all times. This can be accomplished only by seeing that the security records heretofore mentioned are kept up to the minute.

(9) Preparation of Clearing Sheets

The Clearing Sheets are prepared directly from the Receive and Deliver Tickets.

Balance Sheets

The Committee on Business Conduct of the New York Stock Exchange requires members of the Exchange to submit to them at intervals information concerning their financial condition. The questionnaire to be filed reporting the financial condition of the member firm is to be prepared only after an audit of the books has been made. The regulations prescribed by the Committee for the audit pertain to

(*a*) Preparation of a trial balance and the balancing of securities.

(*b*) Physical examination of securities in box, confirmation of securities in transit or transfer, and an inspection and confirmation of securities in safekeeping.

(*c*) Written confirmation to be obtained for the following:

- (i) Bank balances.
- (ii) Borrowed money and collateral held.
- (iii) Details of securities borrowed or loaned, failed to deliver or receive.
- (iv) Ledger balances and security position of customer accounts.
- (v) Ledger balances and security position of partners' accounts.

The questionnaire provides for the furnishing of information concerning total bank balances; total money borrowed and value of collateral; classification of negotiable securities in box and transfer; customers' debit balances; and whether secured, partly secured, or unsecured; customers' credit balances, and whether free or encumbered; partners' capital accounts; profit and loss accounts; and finally, contingent liabilities.

The balance sheets of brokerage establishments vary greatly in form and in content. Some of the more unusual accounts appearing on the balance sheet are, stocks borrowed, stocks loaned, failed to deliver and failed to receive, stock exchange seat, Clearing Corporation deposit, partners' trading accounts, investments. Financial statements presented in some cases show only the debit or credit balances in the asset and liability accounts. A balance sheet of a broker prepared in this manner is difficult to understand or analyze. Customers' accounts have either debit or credit balances and may be either secured or unsecured. Stocks pledged by customers as security for the amount they owe brokers may be loaned to other brokers or become part of the collateral for a bank loan. Customers short of securities often harbor credit money balances in their accounts, but these credit money balances may be offset by debit money balances in the stocks borrowed account.

To analyze a balance sheet containing assets and liabilities it is necessary to determine security balances as well as money balances before the equities in the accounts can be ascertained. The work sheet presented herewith shows the net equity of the accounts after making adjustments for security valuations.[1] A considerable number of accounts have been eliminated from the statement, and all balances are shown in thousands of dollars.

It has been emphasized that for every long there is an

[1] For a more complete form of this statement see "How to Audit" by Associates of Miller Franklin and Company, published by Harper and Brothers, New York, 1930, pages 188–189.

Account	Money Balances Dr.	Money Balances Cr.	Security Balances Long	Security Balances Short	Equity Balances Assets	Equity Balances Liabilities
Cash in bank	$240,000.00				$240,000.00	
Stock Clearing Corporation	25,000.00				25,000.00	
Money borrowed and collateral value:						
Collateral loans		$441,000.00				
Value of collateral				$653,000.00	212,000.00	
Stock borrowed	12,000.00		$13,000.00			$1,000.00
Stocks loaned		9,000.00		9,000.00		
Value of securities in box or in transfer				400,000.00	400,000.00	
Customers' accounts—Debit balances	750,000.00		1,063,000.00			313,000.00
Customers' accounts—Credit balances						
Short sales		18,000.00		14,000.00		4,000.00
Credit balances free		41,000.00				41,000.00
Partners' capital		521,000.00				521,000.00
Profit and loss		116,000.00				116,000.00
Exchange seat	125,000.00				125,000.00	
Other assets	8,000.00				8,000.00	
Other liabilities		14,000.00				14,000.00
	$1,160,000.00	$1,160,000.00	$1,076,000.00	$1,076,000.00	$1,010,000.00	$1,010,000.00

equal and corresponding short. It can be said that the total value of all long securities is offset by the values applied to securities short. This must be true, since the value is being applied to the twofold aspect of securities. In the above illustration the security columns are in balance. Upon applying security valuations to the accounts the real status of the assets and liabilities is ascertained. The excess of securities pledged to secure collateral loans is shown as an asset of $212,000. The firm has borrowed securities worth at present $13,000 and has issued a check in payment for $12,000, the balance due being $1000. Securities valued at $400,000 are unpledged and have been extended to the asset column. Although customers owe $750,000, the value of securities held over and above the amount due is $313,000 and is shown as a liability. Customers with credit balances of $18,000 are short securities totaling $14,000; the excess credit of $4000 is extended as shown in the illustration.

The nominal or profit and loss accounts present no unusual features. Revenue accounts include commissions received, dividends received, interest on bank balances, interest on customers' accounts, and profits on the firm's trading account. Expenses are divided into advertising, bad debts, commissions paid, depreciation, insurance, interest paid, postage, rent, salaries, stationery, taxes, and ticker and news service.

QUESTIONS AND PROBLEMS

(a) Questions

1. Enumerate the principal books of a brokerage concern and state the purpose of each.

2. Outline the accounting problems of a brokerage house.

3. Explain clearly wherein the following brokerage records differ: clearing-house blotter, ex-clearing house blotter, cash blotter.

4. Classify the books and records used by a stock brokerage firm into: (*a*) Memorandum records. (*b*) Books of original entry. (*c*) Books of final record.

5. Explain the following terms used in brokerage accounting: (*a*) Long. (*b*) Short. (*c*) Balance to deliver. (*d*) Blotters.

6. Discuss the clearing procedure followed by the night branch of the Stock Clearing Corporation.

7. Heit and Company, stock brokers, purchased for the account of J. Norris 100 shares of A. B. Company Stock at $66 per share. Mr. Norris put up a cash margin of $3630.00 and as further security deposited 50 shares of C. D. Company Stock with his brokers.

Trace in detail the steps necessary to record all parts of this transaction on the books and records of the brokers from the time the order is received until final record is made.

8. Mention some of the difficulties arising in analyzing a broker's balance sheet.

(b) Problems

1. During a given day, a broker entered into the following transactions:

Purchased	300 U. S. Steel	@	117
"	100 New York Central	@	49
"	400 Texas Corporation	@	60
Sold	400 U. S. Steel	@	118
"	500 Texas Corporation	@	59

Assume that these are the only Clearing House items for the day and that settlement prices are as follows:

U. S. Steel	119
Texas Corporation	60
New York Central	48

(*a*) What securities would actually have to be delivered?
(*b*) What securities would actually have to be received?
(*c*) What would be the amount of the debit or credit memorandum which would be recorded to clear money balances the following day?

2. J. C. Wilson for some time has been buying and selling securities through the brokerage firm of Hastings and Rapp. On the statement rendered him last month, by the above brokerage firm, his debit balance was $5000.00, and he was long 300 General Motors, the market value of which was $18,000.00. During the current month, Mr. Wilson entered into the following transactions through Hastings and Rapp:

10th. Sold 400 International Harvester @ 104.
Hastings and Rapp borrowed 400 International Harvester from East & Co., in order to make delivery on short sale.
J. C. Wilson deposited $3000 in cash as additional margin.
20th. Purchased 400 International Harvester @ 100.

Prepare:

1. Journal entries to record the above transactions on the books of the broker.
2. Did Mr. Wilson gain or lose on the short transaction?
3. Compute interest at 6 per cent on Mr. Wilson's account and render him a statement.

3. J. R. Jones for some time has been buying and selling securities through the brokerage firm of Hastings and Rapp. On the statement rendered him last month by the above brokerage firm, his debit balance was $3260.50, and he was long 100 Bethlehem Steel, the market value of which was $9,500.00. During the present month, Mr. Jones entered into the following transactions through Hastings and Rapp:

1st. Purchased 200 International Harvester @ 97.
Mr. Jones deposited as additional margin $1000 in cash and 100 Texas Corporation, the market value of which was $6000.
5th. Hastings and Rapp turned over to the Stock Traders National Bank the 100 shares of Texas Corporation and 100 shares of International Harvester as security for a loan of $9000.
11th. Sold 100 International Harvester @ 105.
21st. Sold 100 Consolidated Edison @ 40.
Hastings and Rapp borrowed 100 Consolidated Edison from East & Co., in order to make delivery on short sale.
26th. Purchased 100 Consolidated Edison @ 39. The shares of this stock, previously borrowed from East and Company, were returned.
31st. Statement was rendered Mr. Jones. Interest was charged at rate of 6 per cent.

Market values, end of month, were: Bethlehem Steel 101; International Harvester 107; Texas Corporation 61.

Prepare:

1. Entries for above transactions in journal form.
2. Statement rendered to Mr. Jones, showing cash and security balances.

4. The following trial balance of the books of a stock broker was taken at the close of business, January 11:

	Trial Balance Jan. 11		Changes Jan. 12		Trial Balance Jan. 12	
	Dr.	Cr.	Dr.	Cr.	Dr.	Cr.
Cash	$57,668					
Capital Accounts		$27,000				
Expenses	2,720					
Commissions		15,363				
Interest		105				
John Doe—Long	18,680					
Long: 100 Am. Can.						
200 Eastman Kod.						
John Doe—Short		3,400				
Short: 100 Nat. Dairy Prod.						
F. Lukens—Long	14,000					
Long: 200 Am. T. & T.						
J. Smith—Long	6,000					
Long: 100 Eastman Kod.						
J. Smith—Short		27,000				
Short: 200 Am. Can.						
A. White—Short		23,000				
Short: 150 Am. Can.						
Stock loaned		25,800				
Short: 250 Eastman Kod.						
50 Am. T. & T.						
Money borrowed		9,200				
Short: 100 Am. T. & T.						
Stock borrowed	31,800					
Long: 100 Nat. Dairy Prod.						
275 Am. Can						
150 Del., L. & W.						
100 Am. T. & T.						
Box						
Short: 150 Del., L. & W.						
50 Eastman Kod.						
25 American Can						
150 Am. Tel. & Tel.						
	$130,868	$130,868				

The transactions for January 12 were as follows:

Purchases:	200 Am. Can.	@ 107	for	J. Smith
	50 Am. T. & T.	169	"	F. Lukens
	100 Del. L. & W.	19	"	A. White
	100 Nat. Dairy Prod.	23	"	John Doe
Sales:	100 Am. Can. Par. 25	@ 109	"	J. Smith
	200 Del. L. & W. Par 50	19½	"	F. Lukens
	100 Nat. Dairy Prod. Par 100	@ 23½	"	A. White
	50 Eastman Kodak. No par	165	"	J. Smith
	100 Eastman Kodak. " "	166	"	John Doe

Additional margins received: F. Lukens, $500 cash and 150 shares Eastman Kodak.
Borrowed 100 shares Del. L. & W. from Dexter Bros.
Settlement prices:
Am. Can 105; Am. Tel. & Tel. 169; Del. L. & W. 20; Nat. Dairy Prod. 22; Eastman Kodak 168.
Miscellaneous expenses paid, $75.00.

Prepare a general blotter and a trial balance.

5. From the information in preceding question, prepare clearing house and ex-clearing house blotters, also trial balance.

6. Draft a security or position ledger to show condition of security balances as of January 12.

7. The following facts were obtained from the books and other records of N. York & Co., stock brokers, as of December 31. (1) Prepare an ordinary balance sheet; (2) prepare an equity balance sheet.

Cash in banks and on hand	$220,000
Customers' debit balances	86,000
Customers' credit balances	302,000
Capital accounts of partners	620,000
Federal and state tax stamps on hand	200
Furniture and fixtures	25,000
Firm's debit balance—trading account	472,000
Money borrowed from banks	158,000
Membership, Stock Exchange	280,000
Securities borrowed—contract price	130,000
Securities loaned—contract price	132,000
Sundry accounts payable	1,200
Value of securities in box and transfer	216,000
Value of securities pledged as collateral for bank loans	256,000
Value of securities due from brokers for securities loaned	128,000
Value of securities customers are "long"	196,000
Value of securities customers are "short"	220,000
Value of securities due to brokers for securities borrowed	134,000
Value of securities in firm's investment and trading account "long"	490,000

PART V

DEPARTMENT STORE ACCOUNTING

CHAPTER XIX

ADVANTAGES AND ORGANIZATION

In the accounting systems discussed in previous chapters, emphasis was placed on the practices and procedures followed in the accounting for and auditing of cash receipts and disbursements. While it is true that many accounting problems arise in connection with the many activities of the financial institutions mentioned heretofore, a proper accounting for cash is of primary importance. The purpose of this section is to familiarize the reader with the organization, the operation, and the accounting problems of retail merchandising. The accounting for the purchase and sale of merchandise must be emphasized together with an accounting for cash. Businesses organized for the sale of merchandise are far more numerous than any group of financial concerns. Outlets must be established for the economical distribution of the tremendous output of our factories. The general store catering to the needs of the inhabitants of the surrounding countryside assisted materially in this distribution in the past, but it has been superseded to a very large extent by the modern department store, by the chain store, and by other units selling specialized merchandise. The growth of these stores has diversified and complicated the problems of organization and management. The accounting systems have become more complex and can be said to be less standardized than those of building and loan

associations, insurance companies, banks, and brokers. The application of accounting principles to the transactions of merchandising businesses will be confined in this section to department stores, inasmuch as the accounting procedures of chain stores, specialty stores, factory branches, etc., do not differ fundamentally from those of a modern department store.

Department Store and Its Advantages

The department store can be said to consist of a large number of separate stores under one roof controlled and operated as a unified whole, whereas a chain store is but one of many stores controlled and operated by a centralized management, each store in the chain having a separate location. By the centralization under one roof of all or of a large part of the various kinds of merchandise which the public requires, has come about economy in distribution, with the following advantages:

1. Public convenience is served because many kinds of shopping may be done under a single roof.
2. The good will created by the efficient service of one department will tend to induce the customer to patronize other departments.
3. A great saving of overhead is effected by the department store in the following:

   (*a*) Rent, because the customer, once attracted indoors, will readily go from floor to floor, thus permitting a very large percentage of the business to be done on floors other than the street floor, where the rental value is exceedingly high.

   (*b*) A common delivery service for all departments.

   (*c*) Credit, accounts receivable, accounts payable, audit, cashier, and maintenance departments, as well as merchandise repair shops, alteration rooms, employment offices, merchandise management, personnel management, etc., for the common use and supervision of all the sales departments.

(*d*) A central advertising department which enables the carrying on of more effective advertising campaigns than could be managed by the single-line store. The procurement of a certain amount of space in the papers each day makes it possible to keep the store always before the public eye. Also attention may be called from day to day to such merchandise as is especially seasonable or exceptionally low in price.

4. The avoiding, to a large extent, of the effects of seasonal dullness, for only a small part of the sales of the whole organization will be reduced by conditions peculiar to seasonal lines of merchandise.
5. The procuring of credit, for department stores are obliged to become large borrowers. Owing to their size, they are generally known throughout a great part of the country, and as a result commercial note brokers are willing to handle their paper. They can thus secure money in cities where the interest rate is lowest, and in turn, with the money thus obtained, take advantage of cash discounts. It should be noted that some of the larger stores are in a position to dispense with borrowing, and have become lenders in the money market.
6. The reduction of prices; because of its great volume of business the department store generally can sell at lower prices than the smaller one-line store.
7. Extensive trade, which would otherwise be spread through various establishments. Generally speaking, the locality, size, and layout make it possible for the large department store to offer unusual facilities that appeal to the public; and writing rooms, rest rooms, concerts, elevators, delivery systems, charge accounts, and the like, go a long way toward gaining the patronage of many persons.
8. The ability to display merchandise attractively in the

store's great windows. Experts are employed for window dressing, and this expense is more than justified in that such advertising tends to attract customers into the store.

9. The maintaining of branch offices by most of the larger department stores. These are very valuable in saving time and expense in sending high-salaried buyers to distant markets. By gathering samples and procuring data regarding various articles, these branch offices can be of great assistance to buyers in making their selections, oftentimes making it unnecessary for them to journey to the market in person.

The present-day department store is a product of the last fifty years. It has developed from the old-fashioned drygoods store. Gradually, progressive merchants have added line after line to the kinds of material handled, until today their stores have practically everything required by a person for himself or his home.

Organization

In order to provide a proper background for the discussion of the operation and accounting of the department store, it may be well to consider briefly the plan of management that is typical of the modern store. The executives such as the comptroller,[1] general manager, and publicity director, all of whom may be appointed by the board of directors, are responsible for the successful operation of the store and accordingly play an important part in the initiation and execution of store policies. As a group of executives, they originate the advertising and selling policies, determine credit policies, and establish purchase and expense budgets. As divisional or departmental executives, they determine the policies of their department within the grant of authority under which they operate.

The comptroller has charge of the financial, accounting,

[1] The retailing field generally has adopted the word controller instead of comptroller to designate the head of the accounting and statistical division.

and statistical work. Under the comptroller there are minor executives in charge of the various subdivisions of accounting, such as cashier, paymaster, chief of accounts payable division, chief of accounts receivable division, auditor, statistician, and credit manager.

The general manager is assisted by a general merchandise manager and a general superintendent. Under the general merchandise manager are divisional merchandise managers who have charge of many homogeneous departments, there being buyers and assistant buyers for each department; also a style bureau to determine whether the assortment of merchandise is sufficiently varied and stylish to attract shoppers; a shopping department which checks up on prices by shopping in other stores as well as in its own store for the purpose of determining whether the stock is complete and prices in line with those of competitors. The buyers and their assistants are responsible for the condition of the stock, and for the stock control records. They must also see that merchandise is moved without delay from the receiving and marking rooms onto the sales floors. Invoices must be checked and approved by them and merchandise ordered or reordered in accordance with budgeted allowances.

The duties and responsibilities of the general superintendent are many. He has charge of personnel, operating, and customer service departments. The personnel director has charge of the employment of sales people, office clerks, and others; of the training of new sales clerks; and he exercises supervisory powers over timekeepers. The superintendent of the operating department is assisted by minor executives in charge of

1. Delivery service and equipment.
2. Warehouse.
3. Receiving department.
4. Carpenters, painters, etc.
5. Stockroom.
6. Marking or pricing department.

The superintendent of the customer service departments is in charge of

1. Telephone service.
2. Elevator service.
3. Mail order.
4. Merchandise adjustment.
5. Work rooms, such as alterations, jewelry repairs, furniture refinishing, etc.

The publicity director, sometimes called the sales promotion manager, is in charge of all advertising and display. His chief assistants are an advertising manager and a display manager. The primary purpose of this division is to see that goods are sold. The advertising manager is in charge of newspaper and direct mail advertisements. In this work he is assisted by artists and copywriters who prepare the copy. The display manager must co-operate with the advertising manager by prominently displaying the merchandise featured in the newspapers. Window trimmers, interior display men, and sign writers assist the display manager.

It can be seen from the above that a department store is an institution of many departments. The layman often thinks of a department store in terms of its selling functions and very seldom considers the departments which do not seem to contribute directly to this selling function. But without these departments the work of the store could not be performed efficiently. Because of the very existence of these departments, the accounting problems arising in the collecting, recording, summarizing, and interpretation of data tend to become more complicated.

Accounting

The accounting department is one of the most important in the organization, for it serves to keep an accurate check on the operations of the business and to make possible the preparation of important statements by the auditing and

statistical divisions. The accounting work of a department store may be handled by four divisions: the auditing division, which keeps the sales records, except records pertaining to customers' charge accounts; the accounts receivable division; the accounts payable division; and the division referred to as the comptroller's office, where the general books of the concern are kept.

A further discussion of the operations will be considered in the next chapter.

CHAPTER XX

OPERATION OF PURCHASE AND SALES DEPARTMENTS

The merchandising business is one that involves the handling of many sales both large and small. This dealing in numerous articles necessitates the keeping of a vast number of detailed records. The small store is chiefly concerned with the keeping of accounts receivable, many of which are small, but in the department store, where many kinds of stores are operated under one management, there is a vital need not only for the accounting for transactions with customers, but also for an accounting control of the various divisions of the store. The endeavor on the part of the management to unify all the operations of the various departments clearly brings to view the need for accurate statistical information.

The accounting system in the modern department store is somewhat analogous to the nervous system in the human body. When the nervous system is not functioning properly, the general health of the human being suffers. Likewise, the operations of the store cannot be successfully carried on unless a smoothly functioning accounting system properly controls the various parts of the organization. The system must provide the machinery whereby each of its functions may be intelligently carried out by the store's employees with a minimum of effort. Furthermore, it must provide a rigid check against carelessness and dishonesty.

It is quite beyond the realm of one's imagination to picture a department store endeavoring to operate without a system for checking and controlling the numerous operations involved in selling and purchasing, in handling charge accounts, and in providing for the return of goods. Not

only must the transactions involved in the handling of sales and purchases be recorded properly, but from time to time these items, as well as expense items, must be studied with a view to the preparation of comparative statements which will serve to guide the executives of the organization in their work. Only with a proper accounting system can worth-while statements be prepared each day, week, month, or year, as occasion demands.

Purchasing

In order that a department store may function, it is essential that merchandise be on hand. This naturally calls for a system of buying. In fact the earnings resulting from the sale of merchandise are closely correlated with efficiency in purchasing. Likewise, the ability of the buyers to divine probable market conditions will make it possible for the selling department to display the proper merchandise at the proper time. If the buyers are to function to the best advantage, they must maintain records for the determination of the type as well as the quantity of merchandise to be purchased. One of the great aids to a buyer is a statement setting forth the sales of his department during preceding periods. Such a statement is prepared for the buyer of each department together with an estimate of sales for the ensuing period. The stock records will readily reveal the quantities of material on hand. By a comparison of these records with the estimated sales, the buyer will be in a position to determine the amount of material he should order. It is improper to carry too much stock on hand, in that it tends needlessly to tie up working capital; such stock may have to be sold at a sacrifice because of obsolescence or because it has become shopworn. On the other hand, it must be borne in mind that the offence is just as great if stocks are permitted to become too low. Maximum and minimum amounts should be determined upon in advance, and as the merchandise on hand approaches either,

steps should immediately be taken to maintain the proper quantity.

Purchases may be divided into two classes: expense purchases, which represent the purchase of supplies for the business; and merchandise purchases, which include all goods purchased for resale and certain materials which are used by the factory in manufacturing the finished product. Expense purchases usually are authorized by one of perhaps three heads, acting within his own sphere, namely, the head of the operating department, head of the service departments, and head of the store decorating section. The allocation of expense purchases will be considered in connection with the description of expenses; at this point we shall interest ourselves only in the purchase of merchandise for sale in the store.

As indicated in the description of the organization, each sales department is supervised by a department manager or buyer, who is responsible for the conduct of his department. Where there are several departments handling related lines, a divisional merchandise manager may be appointed chief of a number of departments. While the buyer is in charge of the purchase of merchandise for sale in his department, he is in turn responsible to the merchandise manager. The latter rarely interferes in the actual selection of merchandise to be purchased, but he does exercise a constant and most careful supervision over the extent of the purchases. It is his function to determine the amount of money the departments may spend in purchasing and consequently to approve or disapprove purchases recommended by the respective buyers. He notifies the buyers as to the purchase allotments which he has made for them. If these allotments are exceeded in the buyer's list of goods desired, it is his privilege to refuse to permit such excess purchases to be ordered or, if ordered, received by the department concerned.

After the goods have been selected by the buyer and the transaction is confirmed by the merchandise manager, a

written order is sent to the vendor authorizing the shipment of the material. This order generally is made out in quadruplicate. The original is sent to the vendor, one copy is sent to the buyer, one is entered in an Order Register File, and one is sent to the receiving department. The order sets forth the date, to whom the order was issued, what material or supplies have been ordered, the department

INVOICES REGISTERED AGAINST DEPARTMENT

Month	Day	Year	Sheet No.

Register No.	Vendor	Date of Invoice	Amount		Date Passed	
1						
2						
3						
4						
5						
6						
7						
8						
9						
0						
1						
2						
3						
4						
5						
6						
7						
8						
9						
0						
		TOTAL				

Form LVII

INVOICE REGISTER

ordering, the date of delivery, etc. The truck driver delivering to the receiving department must present an invoice with the goods. The receiving clerk gives a receipt to the driver for the number of packages only. No attempt is made at this time to check the quantity by means of the invoice. When the goods are dispatched to the checking room, they are checked with the invoice and the purchase order, both as to quantity and quality. The invoices are given a store

number and are recorded in an Invoice Register (Form LVII). The purpose of this register is to keep a record of all invoices which are received in order that they may be recorded subsequently in the purchase records. The accounting for the debits and credits in connection with invoices received will be considered in the next chapter.

Selling

Although the purchasing organization is ranked as one of great importance in the department store, it is obvious that if the store did not contain an efficient corps of salespeople, the efforts of the purchasing organization would be in vain. In spite of the exercise of foresight in obtaining the best values at the lowest prices and at the best discounts, profits would not inure to the management unless it were able to sell at a profit.

There are nine major kinds of sales:

1. Cash Register, Take
2. Cash Register, Send
3. Cash Take
4. Cash Send
5. Charge Take
6. Charge Send
7. C.O.D.
8. Instalment
9. Lay Away

Each of these groups differs from the others in essential points; hence each will be treated separately.

The development of the cash register in recent years has forced the department store to take advantage of the efficiency offered in handling certain types of sales by this method. The extensive use of the cash register has developed what is known as the "Clerkwrap System," under which salespeople are permitted to wrap the merchandise and deliver it to the customer when the merchandise is paid for, and customer desires to take same. Cash registers are

used in handling Numbers 1 and 2 above; an explanation for handling them will be given later.

In order to facilitate the handling of sales classified under Numbers 3 to 9 inclusive, department stores have developed the salescheck. The development of this salescheck in recent years has been along lines which have resulted in the adoption by large stores of one form of salescheck which can be used in recording all types of sales. All sales are written up on the salescheck by the salesperson at the time merchandise is sold. Saleschecks are printed numerically, and placed in binders for salespeople, who are given a course of instruction as to the correct method of recording. Safeguards must be thrown around each and every type of sales transaction in order to prevent the possibility of loss through theft or carelessness.

There is no generally accepted form for the salescheck. Each store develops the procedure best suited to its requirements.

A group of stores operating in the East and South have developed the type of salescheck shown in Form LVIII.

A brief explanation will be given of each type of sale as listed in the above classification.

1. *Cash Register, Take:*

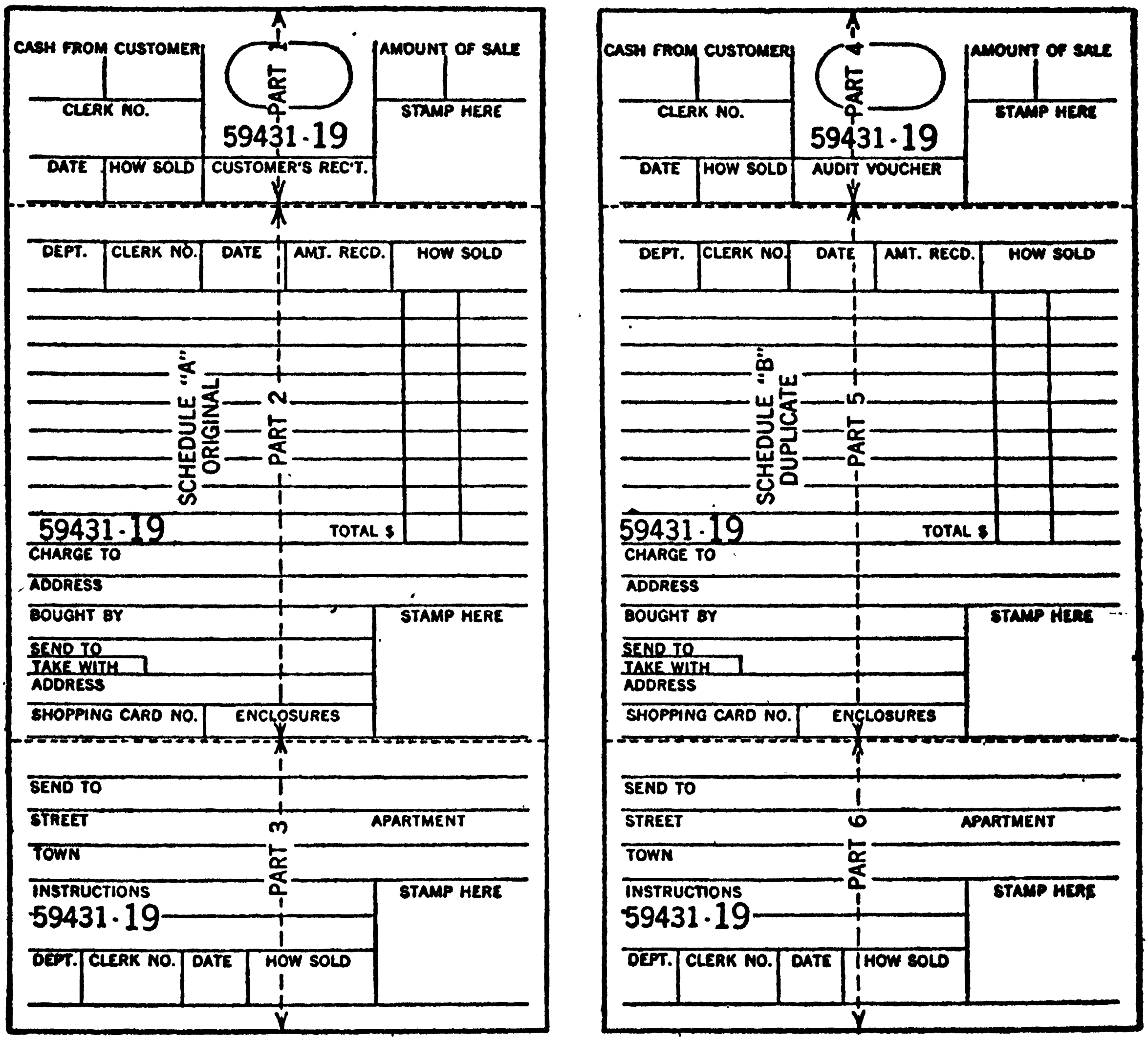
When the customer purchases merchandise for cash, and desires to take the package, the sale is registered in the cash register; the merchandise is wrapped and handed to the customer together with a receipt, which is issued by the register at the time the sale is recorded.

2. *Cash Register, Send:*

When the customer purchases merchandise for cash, and desires to have the package sent, the salesperson fills out salescheck (Form LVIII), which for purposes of this explanation has been separated into six parts; the disposition of these six parts is as follows:

The salescheck consisting of six parts is placed in the register for validation. Parts 1 and 2 are placed in the

register drawer. Parts 3, 5, and 6 are placed with the merchandise and sent to the central wrapping division. Part 4 is given to the customer, which acts as a receipt for the payment made.



Form LVIII

SALESCHECK

3. *Cash Take:*

When the customer purchases merchandise, and desires to take the package, after having paid for same, and no cash register is stationed at this location, a record is made on the salescheck; the disposition of which is as follows:

Parts 1, 2, 3, and 6 are sent with the cash to the cashier's office, and parts 4 and 5 are wrapped with the merchandise. The cashier gives change, if any, together with part 1, to

the salesperson, who retains part 1 as her receipt, and turns change over to the customer. Part 2 is forwarded to the auditing department for the purpose of checking cash received and for filing.

4. *Cash Send:*

In the group of stores under observation, merchandise sold which is to be forwarded to the customer requires the same salescheck as explained in previous paragraphs. The salescheck is made out and disposed of as follows:

The original of the salescheck, parts 1, 2, and 3, are sent to a cashier, where it is stamped; this represents an acknowledgment of the receipt of cash, after which 1 and 3 are returned to the salesperson, who retains part 1 as a receipt and forwards part 3 together with parts 5 and 6 and the merchandise to a central wrapping division, where part 5 is placed in the package. Part 6 is filed in the delivery department, and part 3 is attached to the outside of the package for the driver's use in making delivery. Part 4 is the customer's receipt, and is given to the customer at the time payment is made.

5. *Charge Take:*

Parts 1, 2, 3, and 6 are sent by the salesperson to the credit department for approval of credit. Parts 4 and 5 are inserted in the package. Parts 1 and 2 are forwarded to the auditing department to be used as the basis for determining the sales of the department, and the charge to accounts receivable control. Part 2 is subsequently returned to the bookkeeping department to be posted to the customer's account.

6. *Charge Send:*

Parts 1 and 2 are sent to the credit department for approval of credit. Parts 3, 4, 5, and 6 are sent with the merchandise to the central wrapping division, where parts 4 and 5 are included with the merchandise. Part 3 is

attached to the outside of the package, in order that the driver may be able to make delivery. Part 6 is filed in the delivery department. Subsequently parts 1 and 2 are sent to the auditing department to be used as the basis for determining the sales of the department, and the charge to accounts receivable control, after which part 2 is returned to the bookkeeping department to be posted to the account of the customer, and part 1 is retained as part of the auditing department records.

7. *C.O.D.*

All C.O.D. transactions are turned over to a C.O.D. cashier, who in turn holds the drivers responsible. The driver must collect the cash due, or bring back the package. The entire salescheck consisting of all six parts is sent with the merchandise to the delivery department. Part 1 is given to the driver as his record. Part 2 is retained by the C.O.D. cashier. Parts 3 and 6 are filed in the delivery department as their permanent records. Part 4 is returned to the auditing department to be used as a control on the C.O.D. deliveries. Part 5 is attached to the outside of the package, furnishing the driver with the total amount of the C.O.D. to be collected, as well as the name and address to which delivery is to be made. Regardless of whether or not the cash is received, or the merchandise returned, part 4 must be sent to the auditing department. There the C.O.D. cashier's account is balanced, and sales credits for each department are determined.

8. *Instalment Sales:*

These transactions are handled, as far as the disposition of salescheck is concerned, in exactly the same manner as is outlined under the caption of "Charge Send" transactions.

9. *Lay Away:*

There has developed in the past few years a new type of transaction which is known as the "Lay Away." Under

this plan customers who have no satisfactory credit responsibility which would enable them to purchase on regular charge or instalment terms are permitted to select certain merchandise, and have it laid away until it is fully paid for, at which time delivery of the merchandise is made. The disposition of the various parts of the salescheck in transactions of this kind is as follows:

Parts 1, 2, and 3, after having been filled in by the salesperson, are sent to the lay away office, where a card record is maintained showing the purchases and payments of each customer. Subsequently parts 1 and 2 are sent to the auditing department, where the total sales of the departments are obtained, and the necessary control set up for the lay away accounts. Part 2 is then returned to the lay away department, and is filed as the original record. Parts 4, 5, and 6 are wrapped with the merchandise.

Delivery

In the preceding discussion concerning the various types of sales, it was shown that the delivery department checks all merchandise to be delivered, and that no package or parcel can leave the delivery department without the proper address label showing that cash has been received, or that merchandise has been duly charged to the customer's account, or that cash is to be collected by the driver upon delivery of the package. The delivery department is extremely important in the store organization, especially from the point of view just mentioned, and in addition it must be operated in a very courteous manner.

After the packages are wrapped they are gathered together and placed on trucks or conveyors to be sent to the package sorting division, which is usually located in the basement or an adjacent building. The packages are separated by sections or routes indicating where the packages are to be delivered. Department stores formerly used a method of sheet writing in controlling packages handled through the delivery department. In recent years this sys-

tem has become more or less antiquated by reason of the introduction of a system whereby duplicate address labels are used by the delivery department in order to check the number of packages given to each driver. As a result of this a tremendous amount of detail work has been eliminated, and a more accurate control maintained. In the operation of the stores referred to, the packages are sent to the package sorting division, with the original and duplicate address label attached to the outside of each package. As the sorter disposes of a package by throwing it into the route bin, the duplicate address label is removed and placed in a box corresponding by number with the route. This acts as the control, and shows the number of packages, and what packages were given to each driver on each trip. At the time of sorting, the duplicate address label is stamped with the route number. Subsequently these duplicate address labels are filed according to routes, subdivided by departments. While all this is being done, the original charge checks are being checked by the credit authorizer to determine whether or not the account charged is good for the amount of the purchase. If the account is delinquent, or for some other reason the credit department is not willing to make delivery, a notice is sent to the delivery department to withhold delivery of such packages. This method is known today as the "Drawback System of Authorization."

The delivery men may now count the packages to be placed upon their trucks and are obliged to sign for them. Packages which cannot be delivered are handed to the returned goods clerk. All cash collected by the driver is turned over to the C.O.D. cashier.

CHAPTER XXI

ACCOUNTING RECORDS

THE organization and the operation of the purchasing and selling divisions of a department store having been explained, the accounting records will next be considered. The main accounting problems deal with the recording of purchases, of sales, of expenses, and of cash. They will be considered in this order.

Purchases

An order for a purchase of goods will not be honored by the merchandise manager unless it is made out on an official form. It must contain the merchandise manager's stamp of confirmation, for two reasons: first, that he may control the commitments of the store; second, that he may determine the quantities and prices of goods ordered and the terms under which the order is tendered to the vendor. An order is prepared by the buyer's office, showing the name of the manufacturer to whom the order is to be sent, the amount of the order, and the approximate date of delivery. If approved, the order is mailed to the vendor, and copies are filed for reference when the invoice is received. The invoice, upon receipt, is checked against a copy of the order. The Order File, which is in a state of constant revision, shows the commitments still outstanding, and also reveals whether or not the goods invoiced have been covered by a regularly approved order.

The merchandise manager, it has been said, reserves to himself the right temporarily to withhold merchandise from a department, and in extreme cases to order the return of

the shipment to the manufacturer, when the buyer has exceeded the budget allotment of his department.

The invoices, after being approved and registered as previously mentioned, are forwarded to the buyers, who place the selling or retail unit prices upon them. They are then sent to the marking room where price tags are prepared for the number of units which must be tagged. After this is

DEPARTMENTAL PURCHASES

PERIOD ENDING DEPT. NO.

Date	Name	Reg. No.	% Profit	Cost	Retail	Disc.	Alt. Cost	Trans.	Total

Form LIX

DEPARTMENTAL PURCHASE SHEET

done the invoices are forwarded to the accounts payable division, where they are checked against the Invoice Register. Invoices which are not returned within a reasonable time will be traced. While being checked against the Invoice Register, the invoices are classified departmentally. They are then recorded on departmental purchases sheets (Form LIX), a separate sheet being used for each department. Postings are made to creditors' accounts in the

accounts payable division directly from the invoices submitted. The information appearing on the departmental purchases sheets may be posted weekly or monthly to departmental purchase accounts appearing in the general ledger. In stores which have from fifty to two hundred departments, a subsidiary departmental ledger may be used. In the latter case, a recapitulation of all departmental purchases sheets could be made. This would be the basis of the following entry:

Purchases
Accounts Payable Control

Invoices are filed according to due date. At the time the invoices are to be paid, checks are prepared and forwarded to the creditors, the creditors' accounts being properly charged. Care is taken to see that payment is made when due in order that maximum discounts may be earned. A recapitulation of all checks issued to creditors is made, which will be used as the basis of a general ledger posting debiting accounts payable and crediting cash.

Retail Inventory

Each buyer is held accountable for the success or failure of his department. Merchandise should be sold at a price to cover all expenses and to yield a profit. A buyer must see that the selling prices placed on his merchandise will be sufficient to enable him to operate profitably. The amount to be added to the invoiced cost is expressed in terms of a percentage of the proposed selling price. Naturally the percentages vary from one department to another and are established for each department by an executive board which controls general store policies. This procedure enables a store to control its inventory on a sales price basis as well as on a basis of cost. It must also be borne in mind that the determination of the cost of each one of the thousands of items exhibited for sale in a given department is in itself a very difficult task and can be simplified considerably

through the application of a percentage figure. This plan of controlling inventory is known as the retail inventory method.

Let it be assumed that the buyer of the millinery department has established the selling price of hats which he has purchased. The amount by which the selling price exceeds the cost price is known as "mark-up." The percentage obtained by dividing the selling price into the amount of the mark-up is known as the "mark-up percentage." Thus if an invoice of ladies' hats shows a cost price of $150.00, and the selling price of these hats is to be $300.00, the amount of the mark-up is $150.00, and the percentage of mark-up is 50. If, however, hats cost $65.00 and the selling price is set at $100.00, the percentage of mark-up would be 35. Mark-up is always based on selling price. Frequently there is added to the selling price an additional amount known as an "additional mark-up." Occasionally a buyer finds that, in order to move old or shopworn or excess stock, prices must be reduced. This is known as a "mark-down."

Records must be available showing mark-up, additional mark-up, and mark-down for each department. It will be recalled that summaries of the purchases of each department (departmental purchases sheets) are made showing cost and selling prices. A copy of each summary is filed with the comptroller, who prepares a retail inventory synopsis for each department (Form LX). When a buyer decides to place an additional mark-up on any of the merchandise in his department, the merchandise must be sent to the marking room, where it will be retagged. A record of the total increase in selling price because of the additional mark-up is forwarded to the comptroller. Merchandise marked down must be retagged in the same manner, and the comptroller must be notified of the total amount of the mark-down. The retail inventory of each department can be determined by the comptroller and is easily adjusted to cost figures for purposes of financial statements. In the retail inventory synopsis submitted, it will be noted that pur-

Year

Department

RETAIL INVENTORY SYNOPSIS

Line	A. RETAIL		September	%	Year to Date Sept. 30th	%	October	%	Year to Date Oct. 31st	%
1	BEGINNING INVENTORY & ADDITIONS									
2	Purchases		40,000.00							
3	Additional Mark-ups									
4	TOTAL PURCHASES	Lines 2+3	40,000.00							
5	Inventory at Beginning of Period		10,000.00							
6	TOTAL PURCHASES INCLUDING INVENTORY	Lines 4+5	50,000.00							
7	DEDUCTIONS									
8	Net Sales		30,000.00							
9	Mark Downs		5,000.00	16.7						
10	Employees' Discounts									
11	Inventory Adjustments									
12	TOTAL	Lines 8 to 11	35,000.00							
13	Retail Inventory - End of Period	Line 6−12	15,000.00							
14	Provision for Inventory Shrinkage									
15	Adjusted Retail Inventory	Line 13−14								
16	B. COST									
17	BEGINNING INVENTORY & ADDITIONS									
18	Purchases		24,000.00							
19	Transportation									
20	TOTAL PURCHASES	Lines 18+19	24,000.00							
21	Inventory at Beginning of Period		6,000.00							
22	TOTAL PURCHASES INCLUDING INVENTORY	Line 20+21	30,000.00							
23										
24	Mark-up on Purchases	Line 4−20	16,000.00	40.0						
25										
26	Mark-up on Inventory + Purchases	Line 6−22	20,000.00	40.0						
27	Cost Inventory at End of Period		9,000.00							
28	COST OF SALES									
29	Cost of Merchandise Sold	Line 22−27	21,000.00							
30	Direct Department-Expense									
31	Alteration or Work-Room Cost									
32	TOTAL	Lines 29 to 31	21,000.00							
33	Gross Profit	Line 8−32	9,000.00	30.0						

FORM LX

RETAIL INVENTORY SYNOPSIS

chases for the department total $40,000 at retail. This amount was obtained from a copy of the record of departmental purchases. To this amount has been added the retail value of the inventory at the beginning of the period. This figure, $10,000, appears on the previous retail inventory synopsis. Additional mark-ups made during the month must also be added since the retail value of goods available for sale has been increased. The three items are totaled, and from the total the following deductions will be made: net sales as reported by the department, mark-downs as reported by marking room, employees' discounts, and any inventory adjustments. In the illustration given, it will be noted that $35,000 of the retail value of goods available for sale is accounted for either as sales or mark-downs. The balance remaining is considered to be the retail value of the inventory of merchandise in the department. This retail inventory must be reduced to cost, and the cost of goods sold must be calculated. The purchases at cost are ascertained from the departmental purchases record. To this figure, $24,000.00, is added the cost price of the beginning inventory, $6000, which is obtained from the previous inventory synopsis. The next step is to obtain the amount of the mark-up on purchases, and on purchases plus beginning inventory. From the purchases at retail will be deducted the purchases at cost ($40,000 – $24,000) to secure the mark-up on purchases of $16,000. A comparison of this amount with the total purchases at retail reveals that the merchandise has been marked up 40 per cent. The total mark-up on the beginning inventory is added to the mark-up on purchases to determine the mark-up on all merchandise available for sale. This amount, $20,000, is compared with total retail value of $50,000 and the percentage calculated. This percentage is the same as the percentage mark-up on purchases in the illustration, but very often it varies. The complement of the percentages of mark-up on purchases plus beginning inventory would be used to reduce the closing retail inventory to cost. Since selling price is regarded

as 100 per cent and the mark-up as a percentage of this, the complement percentage for reducing the inventory becomes 100 per cent – 40 per cent, or 60 per cent. The cost of the goods on hand is therefore 60 per cent of the retail inventory of $15,000, or $9000. Physical inventories are taken at least once a year in every department and in some departments several times a year. Discrepancies due to shrinkage, breakage, theft, etc., will be adjusted. Perpetual inventory records will be kept for large or valuable articles, such as furniture and jewelry. The cost of keeping a perpetual inventory of all articles would be prohibitive. The retail inventory plan is not so costly and has much to commend it.

Sales

It will be recalled that sales were grouped under the following headings:

1. Cash Register, Take
2. Cash Register, Send
3. Cash Take
4. Cash Send
5. Charge Take
6. Charge Send
7. C.O.D.
8. Instalment
9. Lay Away.

Of the above groups, six involve the handling and accounting for cash, and three the accounting for amounts due from customers, which ultimately will be collected in cash. At the end of each day, the chief cashier must prepare a cashier's report, itemized by cashiers, showing the total collections for the day. The cash receipts are checked by those portions of the sales schedules which are cut off and remain in the cash machines. The chief cashier's daily report, supplemented by the C. O. D. cashier's and the mail order cashier's reports, is used as a basis for the preparation of a daily general summary of cash sales.

In the case of credit sales, those portions of the sales schedules which are sent to the accounts receivable division are used as a basis for charging customers. Daily sum-

maries are prepared showing the total of the credit sales of each department. The daily sales summaries may be prepared so as to show the cash sales, credit sales, and total sales of each department.

Monthly summaries of departmental sales, prepared from the daily summaries, furnish the data for entries to be posted to the general ledger. This entry in journalized form may be expressed as follows:

Cash
Accounts Receivable Control
Departmental Sales

As stated under the accounting for purchases, the departmental accounts, if few in number, would appear in the general ledger; if numerous, subsidiary ledgers would be used accumulating departmentally, purchases, sales, and expenses.

Return Purchases and Sales

Rejected and returned material is another factor to be considered in accounting for purchases and sales. Departmental purchase accounts and departmental sales accounts must be adjusted to reflect the changes due to rejections. Further, return sales must be sent to the department in which they were originally sold. This involves charging the department for the goods returned by subtracting such amounts from gross sales. A merchandise credit ticket is filled out and forwarded to the bookkeeping department for posting in the accounts receivable ledger. The merchandise credit tickets are summarized for the purpose of determining the charges to be made to the departmental sales accounts and the offsetting credit to the customers' control account.

A summary of sales is shown herewith (Form LXI). Gross sales for the day, including charge, cash, and C.O.D. sales, are recorded departmentally and a grand total shown for the month. The column headed "Credits" refers to merchandise returns, and the daily total of credits is deducted to secure the net sales for the day for any given department.

Expenses

From preceding discussions, it will be seen that the amount of expense involved in connection with the management of a store is necessarily great. In a large department store, there are hundreds of sales persons, and great numbers of indirect workers connected with the selling departments

	DEPARTMENT NO. 10						DEPARTMENT NO. 15					
DATE	Gross Sales		Credits		Net Sales		Gross Sales		Credits		Net Sales	
May 1	1,321	65	100	00	1,221	65	447	00			447	00
2												
3												
4												
5												
6												
7												
28												
29												
30												
31												
TOTAL												

FORM LXI
DEPARTMENTAL SALES SUMMARY

and the non-selling departments. The salaries involved, therefore, amount to considerable sums. Expenses for supplies required for the various departments, the advertising, the use of the building, etc., must be so assembled and distributed that the management will be in a position to determine the cost of doing business and to effect economies wherever they may be deemed necessary. Since each department is analogous to a separate retail store, it is logical to

endeavor to have each bear a proper proportion of the expenses of the entire store. The margin of profit on goods handled by certain departments may be very small, and it is of the utmost importance that the costs of operating a department be accurately known. Lack of control of expenses in various departments may spell the failure of the store. It is absolutely essential that all items of expense be accurately ascertained. Department store executives have different ideas on the exact method of distributing the expenses among the respective departments. In general, it may be said that there are three factors which enter into the question of the distribution of expenses.

In the first place, consideration must be given to the proportion of the entire space of the store occupied by one department. Also, the stock kept on hand by each department must be considered; and in the third place, it is necessary to know the volume of business handled by each department. In some stores these factors are considered separately; in others they are weighted and used collectively. It is possible for a department to occupy a large amount of floor space, to have on hand a large quantity of merchandise, to sell a large volume of goods, and show a gross profit that seems satisfactory, and, yet when the indirect expenses are allocated to this department, reveal that it is running at a loss. It is therefore essential that items of indirect expense be carefully considered.

The expenses for any department consist of direct and indirect expenses. Direct expenses include salaries, wages, and commissions, and supplies for each department. The direct expenses for each department are ascertained from payroll records, commission reports, and reports covering supplies consumed. The allocation of indirect expenses to the respective departments involves a real problem in overhead analysis. The nature of indirect expenses is indicated by such accounts as:

(*a*) Advertising.
(*b*) Interest on investment in stock.

(c) Store decorating.
(d) Rent.
(e) Insurance.
(f) Taxes.
(g) Repairs and depreciation.
(h) Salaries, wages, and other expenses of non-selling departments.
(i) Mail order department expenses.
(j) Sundries.

(a) Advertising is one of the largest expense items in connection with the department-store budget. The amount of space allotted to each department in newspaper advertisements varies with the season of the year. Since newspaper advertising is purchased on a basis of space, it is fair for each department to be charged with the cost of the space it occupies. Advertising of a general nature, which cannot be directly charged to a given department, may be distributed on the basis of the sales which may be attributed to such advertising.

(b) By many stores it is considered proper to charge each department with interest on the average stock investment. This arrangement serves to reward the buyer who is keeping his stocks at a minimum and to penalize the buyer who is overstocked.

(c) Store decorating is apportioned according to departmental sales.

(d) Rent is an item that must be considered. In some cases the store is rented from an outsider; in others, the building is owned by the company and the rental charge is assessed against each department. In the latter case rent takes the place of depreciation, taxes, insurance, and repairs, and other costs of maintaining the building, which expenses are charged against the rental income set up from month to month. Obviously the first step in the allocation of rental expense would be to apportion the rent accord-

ing to floors. The main floor unquestionably is the best floor and therefore should be charged with the greatest share of the rent. Each of the other floors in turn should bear the proper proportion of the rental expenses. Every floor must divide the charge allotted to it among the departments which it contains. Generally the area occupied will be found to determine the method followed. However, it must be borne in mind that some of the stores consider certain locations on the floor more desirable than others and therefore assign a greater proportion of rental expense to the departments occupying the most desirable locations.

(*e*, *f*) Insurance and taxes may be apportioned similarly to rentals. If insurance is on stock, then apportionment should be on the basis of stock carried for each department.

(*g*) Repair charges, if possible, should be allocated to the departments directly benefiting from the repairs. Depreciation on buildings can be apportioned like rentals, but depreciation on departmental fixtures should be charged to the departments using the fixtures.

(*h*) Such expenses as executives' salaries, general office salaries, etc., are incurred for the benefit of all departments of the store, and should be distributed on the basis of sales made. Delivery expenses may be prorated according to the number of packages sent multiplied by weighted numbers representing the expenses of delivery of an average parcel of each department. It is obvious that the piano department may be called upon to bear a much greater proportion of the delivery expense than the jewelry department, where the sales are of large value but of small bulk.

Expenses in connection with conveniences for customers, such as rest rooms, and playrooms for chil-

Department Dress Goods
Account Sales Salaries

EXPENDITURES AND BUDGET CONTROL LEDGER

Sheet No.

Date	Order	Description	Expenditures		Date	Order	Orders Issued		Budget	
			Daily	To Date			Daily	To Date		

FORM LXII
EXPENSE LEDGER ACCOUNT

dren, may be distributed among the various departments in accordance with the relation of the sales of the departments to the total sales of the store. Buying expenses, where branch offices are maintained, are often distributed on the basis of the purchases made within the districts controlled by these branch offices.

(*i*) Mail order department expenses are apportioned by reference to each department's mail order sales.

(*j*) Sundry expenses may be analyzed and distributed on the basis of sales or an estimate of the proper charge for services rendered.

It should be mentioned that most department stores keep an Expense Ledger. Form LXII illustrates an expense ledger account. The ledger is kept in sections by departments, and in each section will appear the separate accounts for expenses incurred. Provision is also made in the ledger account for budget allotment, consequently comparisons of actual and budget figures are easily made.

Expense Classification

Within recent years there has been a noticeable tendency toward standardization of expense classifications by department stores.[1] This movement has been fostered by the formation of various associations connected with department stores and by the desire to exchange information pertaining to operating experiences.[2]

Expenses can be grouped under the following fourteen natural divisions:

1. Salaries and wages.
2. Rentals.

[1] See Convention Reports of the Controllers' Congress of the National Retail Dry Goods Association.

[2] For a further discussion of methods of expense classification and analysis, the reader is referred to the various bulletins and publications on department stores issued by the Bureau of Business Research, Harvard University.

3. Advertising.
4. Taxes.
5. Interest.
6. Supplies.
7. Services purchased.
8. Unclassified.
9. Traveling.
10. Communications.
11. Repairs.
12. Insurance.
13. Depreciation.
14. Professional services.

The number of accounts under each natural-expense division will depend upon the size of the department store. For instance, advertising expenses could be classified as to type, such as newspaper, radio, direct mail, periodical, billboard, etc.

Functionally a further classification is made as follows:

1. Administration.
2. Occupancy.
3. Publicity.
4. Buying.
5. Selling.

Sometimes a sixth functional division, known as delivery, is provided. The purpose of the functional classification is to enable management to determine costs on the basis of the divisions as indicated. The detail cost for each functional grouping would be based on the accounts provided in the natural classification. However, not all these accounts would appear under each function; thus salaries and wages would appear under each functional group, whereas advertising would appear only under the publicity function.

Provision must be made in the accounting system for the accumulation of expenses for each department on a natural as well as a functional basis. Information in this

form will assist the comptroller in the preparation of departmental operating statements.

Cash Accounting Records

Cash receipts may be divided into cash sales receipts and accounts receivable collections. Receipts from cash sales originate with sales clerks, who turn over money for each cash sale to a cashier. As explained previously, Saleschecks are inserted in machines which retain a portion of each check. These retained portions are collected at the end of the day and are used as a basis for determining the charges to be made against each cashier for the daily collections. Cashiers have no means of knowing the amounts with which they are debited, but simply turn in their collections at the end of the day. These collections are recorded by the chief cashier on a form which summarizes the collections by cashiers. This report serves to determine the amount to be credited to the cashiers to offset the amounts with which they have been charged. Funds collected are turned over to the treasurer to be deposited.

A separate force of cashiers receives charge account collections. When a cashier receives a check or cash in payment of a customer's bill, a Cash Credit Ticket is filled out in duplicate. On this ticket are the number, ledger number, folio number, the name and address of the customer, and the amount received. The duplicate is retained by the cashier as a permanent record. The original is sent to the accounts receivable section, where it serves as the basis for an entry crediting the customer's account. At the end of the day, each bookkeeper prepares an analytical report of all receipts from customers. The cashiers are obliged to balance separately and the amounts taken in for the day should agree with the totals of the Cash Credit Ticket duplicates. A consolidated report, including receipts from the mail order department as well as from the cashiers' cages, setting forth the amount collected on accounts receivable during the day, is sent to the treasurer. It should be noted

that each bookkeeper takes off a daily balance from his ledger and sends the stubs of Sales Saleschecks, Cash Credit Tickets, and Merchandise Credit Tickets, which cover goods returned by customers, to the auditing department, where they are checked. Many stores record accounts receivable cash on analytical cash registers. This obviates the necessity for duplicate cash receipt vouchers, substituting therefor the printed record kept by the cash register. The register also provides automatic totals of the cash received for each ledger as well as a grand total of all cash receipts.

Cash disbursements are made on voucher authority only, and cover primarily the payment of invoices received for materials purchased and for services rendered. The voucher checks prepared show the gross amounts of the invoices, the discounts to be credited to the purchase discount account, and the net amounts for which the checks are drawn. Checks are summarized daily for entry in the General Cash Book. Salary disbursements are authorized through departmental payroll sheets. Cash disbursements are handled through the General Cash Book and through the Sundry Cash Book. All major payments are entered directly in the General Cash Book; sundry payments are first recorded in the Sundry Cash Book. At the end of the month the entries in the Sundry Cash Book are abstracted and are transferred in totals to the General Cash Book.

Receipts and payments in a department store are so numerous that it is desirable to have several bank accounts for deposits, for checking, and for borrowing purposes.

CHAPTER XXII

AUDITING AND STATISTICAL INFORMATION

An analysis of the various operations of the department store and of the accounting records will demonstrate that the store is protected from loss, through carelessness or dishonesty, by a system of interlocking balances. The balances prepared by one clerk must interlock with the balances prepared by other clerks, thus rendering another checking system unnecessary. These balances, however, are necessary steps in preparing accounting records of the store, and do not represent recapitulations for checking purposes only. There is one notable additional check, namely, that which requires that copies of all saleschecks written go to the auditing department. Each sales person prepares daily a "tally sheet" or sheets covering the sales for the day. These also are turned in, at the end of every day, to the auditing department. They are compared with preceding sheets to insure that all saleschecks in each sales book are accounted for.

Cash vouchers [1] are first checked against the tally sheets. A missing voucher is at once noted. If the sales person's saleschecks sent to the auditing department contain a cashier's receipt covering the tally sheet entry in question, the item is checked and a substitute voucher is placed with the others, which are then ready to be balanced. Any remaining open items are at once reported to the general manager's office.

Charge and C.O.D. vouchers are next balanced. As in the case of cash vouchers, any items remaining open are

[1] Stub cut off from the salescheck used for cash transactions.

investigated. If a charge transaction is open, the audit copy of the salescheck is sent to the bookkeepers for posting in lieu of the lost original. If it is a C.O.D. transaction which is open, it is traced through the delivery department records to ascertain what became of the package or the money received for it. If no record is found, it is presumed that the salescheck was lost and that the goods never left the store. In that case it is necessary to make inquiry of the customer. If the customer confirms non-receipt of the package, permission is asked to duplicate the sale. The open entry on the tally sheet is then closed as a "void."

The information which should be kept before the merchandise manager for his guidance in the control of the various departments includes comparative statistics relative to the following:

1. Gross purchases of each department.
2. Percentage of cash discount.
3. Returned purchases.
4. Net purchases of each department.
5. Net sales for each department.
6. Returned sales.
7. Stock (at cost, estimated).
8. Profits for each department.
9. Outstanding orders of each department.

These data, which should be supplied at least monthly, should also be summarized for the store as a unit.

The above information is essential; the following may also be supplied:

1. Monthly report of salaries and their percentage relation to sales by departments and by the store as a whole.
2. Monthly report of departmental expenses, and the relation of expenses to sales, both in the case of separate departments and the business as a unit.
3. Other miscellaneous statistical reports may be developed from the accounting and auditing records. All

statistics are based on sales. Some of these reports deal with comparisons of actual sales and expenses to budgeted sales and expenses; transactions handled this period compared with transactions last period; average amount per sale in each department, etc.

Budgetary Control

Every buyer is notified from time to time what his purchase allotments for the coming month are to be. These allotments are not to be exceeded except in those rare instances when an increase of the sales over those of the prior period makes additional purchases necessary. The purchase allotments are computed by reference to the records for the preceding year, and the amount allotted to each buyer for each month is stated. The cost value of the goods sold during each of the months under consideration is ascertained. To this is added or subtracted the increase or decrease in the estimated stock on hand of the department as compared with the estimated stock of the month preceding. The resulting figures are checked by experienced executives, and any changes which are deemed wise are made before the allotments are given to the buyers.

A budgetary control of expenses is recognized as a necessity by many of the leading department stores. Usually the expense budget is prepared for a period covering six months. Through the medium of the budget, valuable comparisons may be made from time to time. The expenses of previous periods will serve as a guide for determining the procedure of the current period. A comparison of estimated expenses with data relating to a similar preceding period may clearly indicate that expenses must be cut down or that allowance must be made for an increase over the estimated amount. When departmental expense budgets are prepared and approved, they are sent to each department to be used as a guide in the incurring of expenses for the following period. The budget plan, when based on accumulated experience, will prove of invaluable aid.

Dep't No. Name	Month			
Gross Sales				
Less Returns				
NET SALES				
COST OF SALES				
Gross Margin				
CASH DISCOUNT				
TOTAL GROSS				
ADMINISTRATIVE				
Interest				
Insurance				
Taxes				
SUB TOTAL				
OCCUPANCY				
Floor Space				
Table Rent				
SUB TOTAL				
PUBLICITY				
Newspaper				
Direct Mail				
Other Direct				
Signs, Cards				
Window Rent				
SUB TOTAL				
BUYING				
Payroll				
Supplies				
Unclassified				
Travel				
SUB TOTAL				
SELLING				
Sales Payroll				
Stock Payroll				
Sales Books				
Stationery				
Gift Boxes				
Exp. Invoices				
Unclassified				
Delivery				
Wrapping				
SUB TOTAL				
TOTAL DIRECT				
BUYER'S PROFIT				
PRORATED				
General Overhead				
OPERATING PROFIT				

FORM LXIII

OPERATING STATEMENT

Operating and Financial Statements

The operating and financial statements of department stores do not differ essentially from the same statements prepared by manufacturing and other establishments, and a detailed discussion of them is not essential. However, it should be borne in mind that in the preparation of the operating statement (Form LXIII), the departmental feature is emphasized, for, as has been mentioned, each department is akin to a separate store and therefore the management is interested in learning whether or not each department is being operated at a profit. To determine this, the sales, cost of sales, and departmental expenses, both direct and apportioned, must be known. The combined figures for all departments will show the profitableness of the store as a whole.

The balance sheet, prepared from the general books, reveals the usual assets and liabilities of a mercantile business. Current assets include cash, notes and accounts receivable, and inventory of merchandise. Other assets consist of land and buildings, equipment, prepayments, accruals, and supplies. Among the liabilities may be found bonded debt, accounts, notes, and accruals payable. Capital stock, surplus, and reserves would also appear on the balance sheet.

QUESTIONS AND PROBLEMS

(a) Questions

1. Tabulate and explain the various accounting problems confronting a department store.

2. Outline an efficient system for the accounting for charge sales.

3. The X Department Store has been having trouble in keeping an accurate control of its purchases. You are consulted and upon investigation find that the reason lies in the method of recording and auditing purchases now in use. Outline the method of recording and auditing which you would recommend.

4. Into what groups may the sales of a department store be classified? State the chief accounting problem each group creates.

5. Outline the factors which must be considered in installing an accounting system for handling of cash. Describe the system you would recommend.

6. You are called upon to install an accounting system for the Aldan Department Store. What provisions would you make for the recording and auditing of cash sales?

7. (*a*) Define the term "mark-up" as used by retail stores.

(*b*) Assume purchases of $300,000 and a "mark-up" of 25 per cent; what would be the selling price of the goods?

(*c*) Assuming that sales of these goods for one month total $225,000, what would be the inventory at the end of the month at cost price?

8. The average mark-up for Department A for the year was 20 per cent. The inventory at the beginning of the year was $10,000 at cost. The purchases for the year amounted to $40,000 at cost. The inventory at the end of the year was $20,000 at selling prices. What was the amount of sales for Department A for the year; the gross profit; the inventory at the end of the year at cost prices?

9. What method would you recommend in allocating the following indirect expenses of a store to departments: advertising, store decorating, rent, delivery expenses, buying expenses?

10. A department store having 10 selling departments averages 10,000 separate sales a day, of which 6200 are for cash and the balance on open account.

(*a*) Suggest a method whereby it will be possible to determine the sales of each department daily.

(*b*) How would you ascertain that all sales for cash had been properly accounted for?

(*c*) The following entry, among others, is made monthly:

Accounts Receivable
Sales Dept. No. 1
" " No. 2
" " No. 3
etc.

State specifically why the entry is made and how the information on which the above entry is based is accumulated.

11. What information would the executives of a department store wish to obtain from the operating statement for the store?

How should the accounting system be arranged to provide this information? How may the operating expenses of a department store be grouped in order to show the cost of carrying on each function of store operation?

12. The Atlantic Department Store operates four departments. The managers of each department wish to know the results of operation of their departments. The present accounting system does not give this information. Outline in detail a system which would give this information, bearing in mind that purchases, sales, and expenses of each department must be segregated from the totals for the whole store.

(b) Problems

1. At the beginning of the spring season a new department was opened by Carfax and Company for the sale of women's sports wear, to meet the growing demand for garments of this type. In this department, which was advantageously located on the fourth floor adjacent to the misses' coat and suit departments, were carried sweaters, knickers, riding habits, sport skirts, sport hats, balbriggan dresses, leather jackets, and bathing suits.

At the time when this new department was opened, the inventory at net cost amounted to $38,350, and the total retail price of this merchandise was $56,795. During the first month of the spring season, purchases of merchandise at net cost totaled $10,122, these goods being marked to sell at $14,819. Inward transportation charges for the month were $317. Additional mark-ups, less cancelations were $2309. Gross sales during this period totaled $29,653. Returns of merchandise by customers amounted to $987, and mark-downs were $850. Discounts to employees were $326; and retail shortages, as shown by the stock-record system, were $194.

Prepare an inventory summary sheet showing the computation of inventory at the end of the first month.[1]

2. The Square Deal Department Store has two departments. The books and records reveal the following facts as of December 31:

(*a*) Prepare an operating statement for each department.
(*b*) Compute the closing inventories at cost and retail.

[1] Adapted from Brisco and Wingate, "Retail Buying."

TRIAL BALANCE—SQUARE DEAL DEPT. STORE

Cash		$12,400	
Accounts and notes payable			$33,790
Inventory merchandise, beginning of year:			
Dept. A	$50,000		
Dept. B	37,500	87,500	
Real estate and equipment		105,250	
Depreciation reserves			7,450
Occupancy expense		33,000	
Delivery expense		6,000	
Publicity expense		25,200	
Accounts and notes receivable		58,000	
Selling expense:			
Dept. A	$26,500		
Dept. B	27,000	53,500	
Capital stock			150,000
Surplus			47,510
Administrative expense		31,000	
Buying expense		10,900	
Sales:			
Dept. A	$300,000		
Dept. B	320,000		620,000
Purchases:			
Dept. A	$190,000		
Dept. B	246,000	436,000	
		$858,750	$858,750

Supplementary Data

	Dept. A	Dept. B
Mark-up	$33\frac{1}{3}\%$	25%
Floor space occupied	50%	50%
Packages delivered	$\frac{7}{12}$	$\frac{5}{12}$
Advertising space	$\frac{3}{5}$	$\frac{2}{5}$

3. The general manager of the Lewiston Department store has had the following operating statement prepared for the store as a whole:

Operating Statement—Lewiston Store Dec. 31

Sales		$1,400,000
Cost of sales:		
Inventory of merchandise 1/1	$308,000	
Purchases	1,049,000	
	$1,357,000	
Inventory of merchandise 12/31	437,000	920,000
Gross profit		$480,000
Expenses:		
Administrative	127,400	
Occupancy	103,600	
Publicity	63,000	
Buying	60,200	
Direct and general selling	135,800	
Delivery	12,600	502,600
Net loss		$22,600

The manager is not satisfied that this statement tells the whole story, and asks you to prepare statements by departments. Using the following additional information prepare an operating statement for Department C *only*.

Dept. C—Additional Information.

Mark-up	40%
Sales (retail value)	500,000
Purchases (cost value)	347,000
Inventory mdse. 1/1 (cost value)	118,000
Inventory mdse. 12/31 (retail value)	275,000
Direct and general selling expense	46,800
Delivery expense	4,500

Apportion administrative, occupancy, publicity and buying expenses upon whatever basis you think best.

Floor space of Dept. C is one-third of total.

4. You have been retained by the Lewiston Department Store and have been asked to prepare the following for the year ended December 31:

(*a*) Balance sheet.

(*b*) Operating statement for each department showing expenses by functions.

The adjusted trial balance of the Lewiston Department Store as of December 31 follows:

	Dr.	Cr.
Accounts and notes payable		$434,600.00
Accounts receivable	$356,912.00	
Cash	23,160.00	
Capital stock		400,000.00
Expense control	502,600.00	
Furniture and store equipment	99,054.00	
Inventory of merchandise, Jan. 1	308,000.00	
Miscellaneous assets	71,225.00	
Mortgages payable		130,000.00
Notes receivable	8,100.00	
Purchases	1,049,000.00	
Reserves for depreciation		40,900.00
Real estate	274,600.00	
Sales		1,400,000.00
Undivided profits and surplus		279,134.00
Prepaid insurance	2,400.00	
Accrued interest on mortgages		1,300.00
Reserve for bad debts		8,197.00
Accrued payroll		1,964.00
Accrued taxes		615.00
Inventory of supplies, end of year	1,659.00	
	$2,696,710.00	$2,696,710.00

The above trial balance was taken after adjusting entries had been made for depreciation, accruals, prepayments, and supplies inventory, but before the new inventory of merchandise had been recorded on the books. This inventory as of December 31, at sales or retail prices, is as follows: Dept. A, $135,000; Dept. B, $260,000; Dept. C, $275,000; total, $670,000.

The expense ledger contains accounts in sufficient detail to permit the analysis of expense by departments, by natural divisions, and by functions. In the preparation of departmental operating statements, however, certain expenses are directly assignable to departments, whereas others must be apportioned upon some equitable basis.

THE NATURAL CLASSIFICATION OF EXPENSE ACCOUNTS

Payroll	$256,200
Rentals	57,400
Advertising	51,900
Taxes	7,000
Interest	35,000
Supplies	19,600
Service purchased	15,400
Unclassified	16,700
Traveling	7,000
Communication	7,000
Repairs	4,200
Insurance	5,600
Depreciation	12,600
Professional services	7,000
	$502,600

THE FUNCTIONAL CLASSIFICATION OF EXPENSE ACCOUNTS

	Dept. A	Dept. B	Dept. C	Total	
Administrative:					
Interest, insurance and taxes on mdse.				$18,625	
All other				108,775	$127,400
Occupancy:					
Repairs to equip. and fixt.	$700	$1,000	$1,500	$3,200	
Rental space	14,200	25,200	18,000	57,400	
All other	10,000	20,000	13,000	43,000	103,600
	$24,900	$46,200	$32,500		
Publicity:					
Advertising—one-third to each department				$51,900	
All other				11,100	63,000
Buying:					
Direct (Dept. A, $11,000; B, $15,000; C, $13,220)				$39,220	
All other				20,980	60,200
Direct General Selling:					
Direct (Dept. A, $25,000; B, $55,000; C, $41,800)				$121,800	
All other				14,000	135,800
Delivery (Dept. A, 70,000 pkg. @ $0.05; B, 57,500 pkg. @ $0.08; C, 30,000 pkg. @ $0.15)					12,600
					$502,600

The basis employed or to be employed in apportioning expenses among departments is as follows:

Administrative Expenses:

Interest, insurance, and taxes on merchandise on the basis of average stock carried.

All other administrative expense on basis of net sales.

Occupancy:

Repairs to equipment and repairs to store fixtures should be allocated direct.

Rental space, a percentage is established for basement, first floor, second floor, etc., as well as for front and rear of the store and departments charged on basis of space used for these respective portions of the store.

All other expenses in proportion to floor space.

Publicity:

Advertising on basis of advertising space if possible. Window space on the basis of a per diem rent, to the department using such space; other expenses on basis of net sales.

Buying Expenses:

Charge direct to departments if possible; otherwise in proportion to volume of purchases.

Direct General Selling:

Charge direct to department if possible; otherwise in proportion to sales.

Delivery Expenses:

Establish a standard charge per package for three or four classifications of merchandise delivered. Gloves, etc., shoes, etc., suits, etc., and furniture, etc.

Other information by departments:

	Total	Dept. A	Dept. B	Dept. C
Inventory mdse. 1/1 (cost)	$308,000	$63,000	$127,000	$118,000
Purchases (cost)	1,049,000	227,000	475,000	347,000
Sales (retail value)	1,400,000	300,000	600,000	500,000
Mark-up		$33\frac{1}{3}$%	30%	40%

PART VI

GAS COMPANIES

CHAPTER XXIII

NATURE AND PROBLEMS OF A GAS COMPANY

GAS companies can be divided into three general groups. One group consists of those companies selling natural gas. Another, of companies which sell gas produced artificially, in which group can be listed all gas companies producing either coal gas or water gas or combinations of the two. The third group consists of those companies producing mixed gas made from natural gas and/or coal gas or water gas.

A gas company is semi-public in nature. Although it is usually run for private profit, its semi-public aspect calls for regulation. It is not unlike a railroad or a street car company, since it is, by its very nature, monopolistic in character. The cost of manufacturing plant, storage holders, and distribution facilities is enormous. Duplication of equipment by prospective competitors cannot be tolerated because of the vast outlay necessitated, and the ruinous competition which might result. Private gain from these semi-public corporations must be held in check, not by having competitors enter the field but by stringent regulation.

Regulation has been accomplished for some time by state boards which have been created to protect the public from exploitation by companies which furnish the public with necessaries (such as transportation, light, heat, water, and communication) and which enjoy monopolistic powers.

These state boards, commonly called public service or public utilities commissions, exercise, in general, control over the quality of service furnished, standards observed, and tariffs charged. To enable the commissions to perform their duties efficiently, uniform systems of accounts have been prescribed, reports must be furnished from time to time, and other provisions relating to the companies under their jurisdiction must be carried out.

Importance and Uses of Gas

The gas industry is one of recent development. Although gas was employed for illumination prior to 1850 its use was limited to very few communities. The United States census of 1850 reveals that there were but 30 establishments manufacturing illuminating gas, and that the gas and other salable products of these concerns were valued at less than $2,000,000. Today there are more than 500 concerns with a yearly output valued at nearly $400,000,000.

In order that the importance and magnitude of the manufacturing gas industry may not be underestimated, the following information has been taken from the published report of the American Gas Association Statistical Bulletin 21, for the year 1935. Data are for companies engaged exclusively in the manufacture and sale of gas.

(a) Fuels consumed:	
Anthracite—tons	126,000
Bituminous—tons	7,849,000
Coke and coke breeze—tons	2,589,000
Oil—gallons	510,608,000
(b) Total sales (thousand cubic feet)	354,357,000
(c) Total gas customers	9,997,000
(d) Revenue from sales to customers	$371,535,000
(e) Population served	49,514,000
(f) Miles of mains	94,400
(g) Meters:	
Regular	9,902,000
Prepayment	171,000

The estimated balance sheet of all the companies engaged exclusively in manufacturing and selling gas, taken from the

same bulletin for the year ended December 31, 1935, is as follows:

Assets		Liabilities	
Fixed capital	$2,093,295,000	Capital stock	$890,919,000
Current assets	157,139,000	Long-term debt	825,766,000
Misc. assets	111,947,000	Current liabilities	91,625,000
Misc. suspense	59,185,000	Accrued liabilities	101,931,000
		Retirement reserve	212,400,000
		Other reserves	57,219,000
		Misc. credits	3,192,000
		Surplus	238,514,000
	$2,421,566,000		$2,421,566,000

Additional information taken from the last report of the United States Department of Commerce, Bureau of the Census, is given herewith:[1]

(*a*) Main by-products:	
Coke—tons	4,648,804
Tar—gallons	163,968,259
Ammonia products—pounds	26,896,321
(*b*) Value of by-products produced	$30,886,000

The bulk of the gas produced is used mainly for cooking and lighting by the general population, for street lighting, and for heating and lighting by industrial establishments. Within recent years gas has taken a place as a competitor of other fuels for house-heating purposes.

The above statistics reveal that it is necessary (*a*) to purchase enormous quantities of fuel to manufacture gas to meet the requirements of a population of more than 50,000,000; (*b*) to read more than ten million of meters before sending out millions of bills involving yearly revenues of nearly $400,000,000; (*c*) to keep a fixed plant, worth more than two billion dollars, in efficient operating condition; and (*d*) to endeavor to pay a return to investors in stocks and

[1] Department of Commerce, Bureau of the Census, Census of Manufacturers, 1935. (Industry 703), February 17, 1937.

bonds which have a book value of nearly two billions of dollars. Before studying the accounting problems and procedure it might be well to inquire into the methods of manufacturing a product whose production requires such outlays.

Manufacture of Coal Gas

As stated above, manufactured gas may be either coal gas or water gas. The manufacturing of gas is technically a chemical process, and the industry is to be classed with chemical manufacturing establishments. The manufacture of coal gas involves the splitting up of coal into its various components and the separation and purifying of a resulting gas. The manufacture of water gas is a synthetic process which builds up a gas capable of being used for heating, cooking, and lighting.

The manufacture of coal gas is made possible by the destructive distillation of coal. Bituminous coal is charged (placed) in fire-clay containers called retorts. These retorts, either oval, D-shaped, or rectangular, are arranged in series called benches, each retort holding from 500 or 600 pounds to several tons of bituminous coal at each charge. The retorts are heated by furnaces using coal or coke to a temperature of 2000 or more degrees Fahrenheit. This enormous heat releases the gaseous vapors imprisoned in the bituminous coal in the retorts, and they pass from the retorts through tubes. There remains in the retorts a residual called coke.

The gaseous vapor thus released is far from being a marketable commodity. It contains traces of numerous products, such as tar, naphtha, ammonia, sulphur, and carbon dioxide. These impurities destroy the usefulness of the gas. They also clog the gas pipes and interfere with the distributive system of the company. Consequently they must be removed. The gaseous vapors coming from the retort accordingly pass through various purifying processes which separate the impurities from the gas. The first step con-

sists in passing the gas through a hydraulic main through which water is kept flowing. Some of the products which escape with the gas from the retort are deposited in this hydraulic main. The gas is next passed through condensers, which reduce its temperature and remove additional impurities. It then flows through a device made to extract the tar. Afterward the temperature is further reduced by passing the gas through additional condensers, and then it is passed through washers and scrubbers, where it is sprayed with water. Most of the impurities are now removed. The gas next goes to the purifiers where the sulphur compounds are removed. It is then ready to be stored, and passes through registering meters to the storage holders.

Manufacture of Carburetted Water Gas

For the manufacture of water-gas, a generator—carburettor—superheater apparatus is used. In the generator, coal or coke is burned to heat the carburettor and the superheater. After the apparatus has been sufficiently heated, live steam is passed through the red-hot bed of coal in the generator. The steam and hot carbon react chemically, and a gas known as carbon monoxide is produced. This reaction can be expressed by the following chemical equation: $H_2O+C=2H+CO$. Carbon monoxide burns with a pale blue flame and cannot be used as an illuminant without being enriched. As the gas passes through the carburettor it mixes with the vapors of an oil spray which has been admitted to the carburettor and vaporized through the intense heat. The mixture passes to the superheater, where complete gasification of the oily vapors and carbon monoxide is accomplished. This complete blending makes impossible the disintegration of the mixture upon cooling. The impurities, few in number, are next removed by passing the gas through purifying processes similar to those used in the production of coal gas. The purified carburetted water gas is then piped to holders to await consumption. From the holders it flows through gas mains to service pipes

leading to the premises of the consumers, where it is registered by means of meters.

The Accounting Problems of a Gas Company

The accounting practices and procedures of any business depend upon the type of organization, methods of manufacturing and distribution, peculiarities of the business, and the detailed accounting or statistical information required by the management and other controlling or regulating body. Gas companies, like other business organizations, have certain fundamental accounting problems to solve, and recognition of the existence of these problems is reflected in the accounting and statistical information which is assembled. Before attempting a study of the system of accounting, consideration should be given to these problems.

If an analysis were to be made of the balance sheets of a number of gas companies it would be noticed that the amount invested in fixed assets is exceedingly high in comparison with the total assets. Records must be kept showing the location, cost, and elapsed life of the various items composing this fixed capital, replacements made, and reserves established for depreciation and obsolescence. In the second place, the accounting classification must enable the company to classify its costs and expenses properly so that the various departmental reports will adequately reflect operating costs. Third, the officials of a gas company are confronted with the necessity of rendering reports to the public service commissions of the states under whose jurisdiction they operate. The classification of accounts prescribed by these commissions tends to create uniformity of accounting procedure and report preparation. Fourthly, the gas company is confronted with the problem of economically recording and collecting, monthly or quarterly, the income due from its thousands of customers. The solution of this problem has resulted in a great application of machinery to the bookkeeping procedure. Finally, there are specific problems such as the accounting for by-products, the

accounting for the sale of appliances, the handling of consumers' deposits, and the determination of adequate replacement reserves. With these problems in mind it might be desirable to look at the general plan of accounts as prescribed by public service commissions.

CHAPTER XXIV

STATE REGULATION OF ACCOUNTING SYSTEMS

PUBLIC service commissions, in performing their duties of regulation, have generally insisted upon a certain uniformity in the accounting systems of gas companies. The classification and number of accounts depend upon the operating revenues of a company. Where the revenues are large, many accounts are required. When the revenues are small, fewer accounts are necessary.

In 1920 the National Association of Railroads and Utilities Commissioners recommended to the states that a uniform classification of accounts for gas companies be adopted. The Public Service Commissions of many of the states have adopted this classification. In a very few years much headway has been made toward the establishment of a uniform accounting classification for gas manufacturing companies in this country. A revision of the classification of accounts prescribed for gas utilities having annual revenues in excess of $250,000 yearly was made by the National Association of Railroad and Utilities Commissioners in the latter part of 1936. This classification was recommended to the Public Service Commissions holding memberships in the National Association for consideration and adoption with such modification as might be deemed necessary by them.

General Plan of the Uniform Classification of Accounts

Under the revised plan outlined by the Commissioners, all accounts must be kept by the double entry method and must be supported by such books and records as will make

possible a full analysis of entry. The classification is divided into these main groups:

(*a*) Balance sheet accounts.
(*b*) Utility plant accounts.
(*c*) Earned surplus accounts.
(*d*) Income accounts.
(*e*) Operating revenue accounts.
(*f*) Operating expense accounts.
(*g*) Clearing accounts.

The following accounts[1] have been prescribed for companies classified as gas utilities and reporting to the public service commissioners of states which have adopted the classification. The classification given below applies to companies whose revenues exceed $250,000 annually.

BALANCE SHEET ACCOUNTS

Assets and Other Debits

I. Utility Plant

100. Utility plant
107. Utility plant adjustments

II. Investment and Fund Accounts

110. Other physical property
111. Investments in associated companies
112. Other investments
113. Sinking funds
114. Miscellaneous special funds

III. Current and Accrued Assets

120. Cash
121. Special deposits
122. Working funds
123. Temporary cash investments
124. Notes receivable
125. Accounts receivable

[1] By permission of the National Association of Railroad and Utilities Commissioners and the publishers. Detailed instructions as to the type of transactions to be recorded in these accounts appear in pamphlets published by the State Law Reporting Company, 30 Vesey Street, New York.

126. Receivables from associated companies
127. Subscriptions to capital stock
128. Interest and dividends receivable
129. Rents receivable
130. Accrued utility revenues
131. Materials and supplies
132. Prepayments
133. Other current and accrued assets

IV. Deferred Debits

140. Unamortized debt discount and expense
141. Extraordinary property losses
142. Preliminary survey and investigation charges
143. Clearing accounts
144. Retirement work in progress
145. Other work in progress
146. Other deferred debits

V. Capital Stock Discount and Expense

150. Discount on capital stock
151. Capital stock expense

VI. Reacquired Securities

152. Reacquired capital stock
153. Reacquired long-term debt

Liabilities and Other Credits

VII. Capital Stock

200. Common capital stock
201. Preferred capital stock
202. Stock liability for conversion
203. Premiums and assessments on capital stock
204. Capital stock subscribed
205. Installments received on capital stock

VIII. Long-Term Debt

210. Bonds
211. Receivers' certificates
212. Advances from associated companies
213. Miscellaneous long-term debt

IX. Current and Accrued Liabilities

220. Notes payable
221. Notes receivable discounted
222. Accounts payable
223. Payables to associated companies

224. Dividends declared
225. Matured long-term debt
226. Matured interest
227. Customers' deposits
228. Taxes accrued
229. Interest accrued
230. Other current and accrued liabilities

X. Deferred Credits

240. Unamortized premium on debt
241. Customers' advances for construction
242. Other deferred credits

XI. Reserves

250–1. Reserve for depreciation of utility plant
250–2. Reserve for depletion of utility plant
251. Reserve for amortization of limited-term utility investments
252. Reserve for amortization of utility plant acquisition adjustments
253. Reserve for depreciation and amortization of other property
254. Reserve for uncollectible accounts
255. Insurance reserve
256. Injuries and damages reserve
257. Employees' provident reserve
258. Other reserves

XII. Contributions in Aid of Construction

265. Contributions in aid of construction

XIII. Surplus

270. Capital surplus
271. Earned surplus

UTILITY PLANT ACCOUNTS

I. Intangible Plant

301. Organization
302. Franchises and consents
303. Miscellaneous intangible plant

II. Production Plant

311. Land and land rights—Manufactured gas
312. Land and land rights—Natural gas
313. Structures and improvements—Manufactured gas
314. Structures and improvements—Natural gas
315. Boiler plant equipment
316. Other power equipment
317. Benches and retorts

318. Coke ovens
319. Producer gas equipment
320. Water gas generating equipment
321. Petroleum gas equipment
322. Other gas generating equipment
323. Coal, coke and ash handling equipment
324. Producing gas wells
325. Natural gas field lines and equipment
326. Drilling and cleaning equipment
327. Gas reforming equipment
328. Purification equipment
329. Residual refining equipment
330. Other production equipment

III. Storage Plant

341. Land and land rights
342. Structures and improvements

IV. Transmission Plant

351. Land and land rights
352. Structures and improvements
353. Mains
354. Pumping and regulating equipment

V. Distribution Plant

361. Land and land rights
362. Structures and improvements
363. Mains
364. Pumping and regulating equipment
365. Services
366. Customers' meters
367. Other property on customers' premises
368. Street lighting equipment

VI. General Plant

370. Land and land rights
371. Structures and improvements
372. Office furniture and equipment
373. Transportation equipment
374. Stores equipment
375. Shop equipment
376. Laboratory equipment
377. Tools and work equipment
378. Communication equipment
379. Miscellaneous equipment

390. Other tangible property
391. Utility plant purchased
392. Utility plant sold

EARNED SURPLUS ACCOUNTS

Credits

271. Earned surplus (at beginning of period)
400. Credit balance transferred from income account
401. Miscellaneous credits to surplus
Total credits

Debits

410. Debit balance transferred from income account
411. Dividend appropriations—Preferred stock
412. Dividend appropriations—common stock
413. Miscellaneous reservations of surplus
414. Miscellaneous debits to surplus
Total debits
271. Earned surplus (at end of period)

INCOME ACCOUNTS

I. Utility Operating Income

501. Operating revenues
Operating revenue deductions:
502. Operating expenses
503-1. Depreciation
503-2. Depletion
504. Amortization of limited-term utility investments
505. Amortization of utility plant acquisition adjustments
506. Property losses chargeable to operations
507. Taxes
Total operating revenue deductions
Net operating revenues
508. Income from utility plant leased to others
509. Rent for lease of utility plant
Utility operating income

II. Other Income

520. Income from merchandising, jobbing and contract work
521. Income from non-utility operations
522. Revenues from lease of other physical property
523. Dividend revenues
524. Interest revenues
525. Revenues from sinking and other funds
526. Miscellaneous non-operating revenues
527. Non-operating revenue deductions
Total other income
Gross income

III. Income Deductions

530. Interest on long-term debt
531. Amortization of debt discount and expense
532. Amortization of premium on debt—Cr.
533. Taxes assumed on interest
534. Interest on debt to associated companies
535. Other interest charges
536. Interest charged to construction—Cr.
537. Miscellaneous amortization
538. Miscellaneous income deductions

Total income deductions
Net income

IV. Disposition of Net Income

540. Miscellaneous reservations of net income

Balance transferred to earned surplus

OPERATING REVENUE ACCOUNTS

I. Gas Service Revenues

600. Residential sales
602. Commercial and industrial sales
603. Public street and highway lighting
604. Other sales to public authorities
605. Sales to other gas utilities
607. Interdepartmental sales
608. Other sales

II. Other Gas Revenues

610. Rent from gas property
611. Interdepartmental rents
612. Customers' forfeited discounts and penalties
614. Servicing of customers' installations
615. Miscellaneous gas revenues

OPERATING EXPENSE ACCOUNTS

I. PRODUCTION EXPENSES

A: Manufactured Gas Production

Operation.

B A	701	Operation supervision and engineering
B A	702	Boiler and other power labor
B	703	Coal gas and producer gas labor
A	703-1	Retort labor
A	703-2	Coke oven labor

A	703-3	Producer gas labor
B	704	Gas generating labor
A	704-1	Water gas generating labor
A	704-2	Petroleum gas generating labor
A	704-3	Other gas generating labor
A	704-4	Gas reforming labor
B A	705	Purification labor
B A	706	Residual refining labor
B A	707	Miscellaneous production labor
B A	708	Boiler fuel
B A	709	Water
B A	710	Fuel under retorts
B A	711	Fuel under coke ovens
B A	712	Producer gas fuel
B A	713	Coal carbonized in retorts
B A	714	Coal carbonized in coke ovens
B A	715	Water gas generator fuel
B A	716	Oil for water gas
B A	717	Gas enricher
B A	718	Liquefied petroleum gas
B A	719	Oil for oil gas
B A	720	Raw materials for other gas processes
B A	721	Purification supplies
B A	722	Miscellaneous works expenses

Maintenance.

B A	723	Maintenance supervision and engineering
B A	724	Maintenance of structures and improvements
B	725	Maintenance of power equipment
A	725-1	Maintenance of boiler plant equipment
A	725-2	Maintenance of other power equipment
B	726	Maintenance of producing and generating equipment
A	726-1	Maintenance of benches and retorts
A	726-2	Maintenance of coke ovens
A	726-3	Maintenance of producer gas equipment
A	726-4	Maintenance of water gas generating equipment
A	726-5	Maintenance of petroleum gas equipment
A	726-6	Maintenance of other gas generating equipment
A	726-7	Maintenance of coal, coke and ash handling equipment
B	727	Maintenance of other manufactured gas property
A	727-1	Maintenance of gas reforming equipment
A	727-2	Maintenance of purification equipment
A	727-3	Maintenance of residual refining equipment
A	727-4	Maintenance of other production equipment

Miscellaneous.

B A	728	Power from other sources
B A	729	Rents

B A 730	Residuals produced—Cr.
B A 731	Residuals expense
B A 732-1	Joint expenses—Dr.
B A 732-2	Joint expenses—Cr.

B. Natural Gas Production

Operation.

B A 733	Operation supervision and engineering
B 734	Operation labor
A 734-1	Gas well operating labor
A 734-2	Field line operating labor
B 735	Operating supplies and expenses
A 735-1	Gas well supplies and expenses
A 735-2	Field line supplies and expenses
B A 736	Purification supplies and expenses
B A 737	Miscellaneous production expenses

Maintenance.

B A 738	Maintenance supervision and engineering
B A 739	Maintenance of structures and improvements
B A 740	Maintenance of producing gas wells
B A 741	Maintenance of field lines and equipment
B A 742	Maintenance of drilling and cleaning equipment
B A 743	Maintenance of other natural gas property

Miscellaneous.

B A 744	Gas well royalties and rents
B A 745	Other natural gas rents
B A 746	Leasehold and rental expenses
B A 747	Non-productive well drilling expenses
B A 748	Residuals produced—Cr.
B A 749	Residuals expense
B A 750-1	Joint expenses—Dr.
B A 750-2	Joint expenses—Cr.

C. Other Production Expenses

Operation.

B A 751	Operation of storage facilities
B A 752	Gas mixing expenses

Maintenance.

B A 753	Maintenance of storage facilities
B 754	Maintenance of other production property
A 754-1	Maintenance of gas mixing equipment
A 754-2	Maintenance of production laboratory equipment
A 754-3	Maintenance of miscellaneous production equipment

Miscellaneous.

B A 755 Gas purchased
B A 756 Other expenses
B A 757-1 Joint expenses—Dr.
B A 757-2 Joint expenses—Cr.

II. TRANSMISSION EXPENSES

Operation.

B A 758 Operation supervision and engineering
B 759 Transmission operations
A 759-1 Pumping and regulating expenses
A 759-2 Operation of transmission mains

Maintenance.

B A 760 Maintenance supervision and engineering
B A 761 Maintenance of structures and improvements
B 762 Maintenance of transmission lines
A 762-1 Maintenance of mains
A 762-2 Maintenance of pumping and regulating equipment

Miscellaneous.

B A 763 Rents
B A 764-1 Joint expenses—Dr.
B A 764-2 Joint expenses—Cr.

III. DISTRIBUTION EXPENSES

Operation.

B A 765 Operation supervision and engineering
B 766 Distribution office expenses
A 766-1 Distribution maps and records
A 766-2 Other distribution office expenses
B A 767 Operation of distribution lines
B 768 Operation of meters
A 768-1 Removing and resetting meters
A 768-2 Miscellaneous meter expenses
B A 769 Services on customers' premises
B A 770 Operation of street lighting equipment

Maintenance.

B A 771 Maintenance supervision and engineering
B A 772 Maintenance of structures and improvements
B 773 Maintenance of distribution lines
A 773-1 Maintenance of mains
A 773-2 Maintenance of pumping and regulating equipment
A 773-3 Maintenance of services

A	773-4	Maintenance of meters
A	773-5	Maintenance of other property on customers' premises
B A	774	Maintenance of street lighting equipment

Miscellaneous

B A	775	Rents
B A	776-1	Joint Expenses—Dr.
B A	776-2	Joint expenses—Cr.

IV. CUSTOMERS' ACCOUNTING AND COLLECTING EXPENSES

B A	779	Supervision
B	780	Customers' contracts, orders, meter reading and collecting
A	780-1	Customers' contracts and orders
A	780-2	Credit investigations and records
A	780-3	Meter reading
A	780-4	Collecting
B A	781	Customers' billing and accounting
B A	782	Miscellaneous expenses
B A	783	Uncollectible accounts
B A	784	Rents

V. SALES PROMOTION EXPENSES

B A	785	Supervision
B A	786	Salaries and commissions
B	787	Demonstration, advertising and other sales expenses
A	787-1	Demonstration
A	787-2	Advertising
A	787-3	Miscellaneous sales expenses
B A	788	Rents
B A	789	Merchandising, jobbing and contract work

VI. ADMINISTRATIVE AND GENERAL EXPENSES

B A	790	Salaries of general officers and executives
B A	791	Other general office salaries
B	792	Expenses of general officers and general office employees
A	792.1	Expenses of general officers
A	792.2	Expenses of general office employees
B A	793	General office supplies and expenses
B A	794	Management and supervision fees and expenses
B A	795	Special services
B A	796	Legal services
B A	797	Regulatory commission expenses
B A	798	Insurance
B A	799	Injuries and damages
B	800	Employees' welfare expenses and pensions
A	800-1	Employees' welfare expenses

A	800-2	Pensions
B A	801	Miscellaneous general expenses
B	802	Maintenance of general property
A	802-1	Maintenance of structures and improvements
A	802-2	Maintenance of office furniture and equipment
A	802-3	Maintenance of communication equipment
A	802-4	Maintenance of miscellaneous property
B A	803	Rents
B A	804	Commissions paid under agency sales contracts
B A	805	Franchise requirements
B A	806	Duplicate miscellaneous charges—Cr.
B A	807	Administrative and general expenses transferred—Cr.
B A	808	Joint expenses—Dr.
B A	809	Joint expenses—Cr.

CLEARING ACCOUNTS

901. Charges by associated companies—Clearing
902. Stores expenses—Clearing
903. Transportation expenses—Clearing
904. Laboratory expenses—Clearing
905. Shop expenses—Clearing
906. Tools and work equipment expenses—Clearing

The letters appearing under the operating expenses refer to the class of gas utility for which the accounts have been prescribed. Utilities having either annual gas operating revenues of $750,000 or more or the original cost of whose gas utility plant amounts to $4,000,000 or more are classed as Class A Utilities. Class B Utilities are those having annual gas-operating revenues of more than $250,000 but less than $750,000 and the original cost of whose plant amounts to less than $4,000,000. The above expense classification includes accounts to be used by utilities engaged in natural gas production.

CHAPTER XXV

ACCOUNTING FOR OPERATING COSTS

REFERENCE to the operating expenses listed in the classification in the preceding chapter will show that all expenses can be classified under well-defined groups such as production, transmission and distribution, customer accounting, new business, and general and administrative expenses. Further analysis reveals that many of the accounts established record only material, or labor or salary charges, or material and labor charges under the heading of maintenance accounts. In addition there are accounts for various types of services rendered or supplies furnished, such as advertising, general office supplies, legal services, and special services. All these involve a purchase either of material, labor, or services. It is the purpose of this chapter to discuss the handling of purchases and payrolls, tracing at the same time the offsetting charges (stores and labor) through the operating expenses or the utility plant accounts.

Accounts or Vouchers Payable

Upon the receipt of an invoice and before it is approved, it must be checked against the purchase order file and the receiving records, if any. Charges must be classified in accordance with the account classification schedule. Vouchers or voucher checks prepared for the invoices which have been approved are recorded in a Voucher or Accounts Payable Register (Form LXIV), subsequent postings being made to the general and subsidiary ledger accounts.

Stores and Supplies

All materials purchased are charged to Materials and Supplies accounts. These accounts cover materials purchased for:

(*a*) Production requirements.
(*b*) Transmission requirements.
(*c*) Distribution requirements.
(*d*) Maintenance and renewal requirements.
(*e*) Customer accounting, new business, and general office requirements.
(*f*) Merchandise bought for resale.

VOUCHER OR INVOICE REGISTER																
Inv. No.	Date	Voucher No.	Name of Creditor	Vouchers Payable	Materials & Supplies			Operating Expenses			Fixed Capital			Misc. Accounts		
					Acct. No.	L. F.	Amount	Acct. No.	L. F.	Amount	Acct. No.	L. F.	Amount	Acct. No.	L. F.	Amount
			Total													

FORM LXIV
VOUCHER REGISTER

Each class of materials should be kept in separate storerooms so far as possible. Stock record cards should be maintained for all material.

As material approaches the minimum quantity to be carried in stock, purchase requisitions and purchase orders are made out, copies being sent to the vendor, to the receiving room, and to the storeroom. The purchasing agent generally retains one copy. When ordered material is

received, it is checked as to quantity and price with the purchase order and forwarded to the proper storeroom, where it is placed in bins or on racks or stored in some other convenient manner. When the invoice has been approved by the storekeeper or purchasing agent, it is forwarded to the accounting department, at which point a voucher is prepared to record the purchase.

As material is required by the various operating departments requisitions are prepared and approved. These requi-

					STOREROOM		NO.				
Requisition	DISTRIBUTION OF						STORES ISSUED				Material & Supplies Credit
	Acct. No.	Acct. No.	Acct. No.	Acct. No.	Acct. No.	Ac	No.	Acct. No.	Acct. No.	Acct. No.	
Totals											

FORM LXV
MONTHLY STORES REPORT

sitions give a description of the items requested together with the account to be charged. The requisition also states whether the material is to be used for maintenance, other operations, or new construction work. The requisitions honored by the storekeeper in each storeroom or warehouse are priced and summarized monthly (Form LXV). The summary after being checked or audited is journalized and posted. The material used for construction is posted in detail to the various utility plant accounts in a subsidiary ledger.

In some instances the expenses of operating the store-

rooms or warehouses are added on a percentage basis to the amount of the invoice and must be taken into consideration in determining the price at which materials issued are to be charged to the various operating and plant accounts.

Payrolls

In accounting for labor, daily time cards (Form LXVI) are prepared for each employee. Each department summarizes its daily time cards on a weekly payroll sheet which is forwarded to the accounting department. The weekly payroll record shows the daily and weekly total of hours worked and the amount due each employee. Columns may be provided to show the accounts to be charged (Form LXVII).

Upon receipt of the payrolls from the various foremen they are audited and summarized. The summary is used as a basis of a journal entry for the general ledger postings. The posting to the subsidiary accounts can be made directly from the original payrolls, as these payrolls contain columns showing the amounts to be debited to specific accounts. Pay checks made out by the cashier from the payrolls are distributed by the paymaster individually to the employees. The total of the pay checks must agree with the total of the charges made from the payrolls to the various expense and construction accounts.

Production Reports

In addition to the material and labor records discussed, a gas company prepares a daily manufacturing report dealing with a special class of materials. These materials, too bulky to be placed in storerooms, are concentrated at the gas manufacturing plant. They include fuel for boilers, fuel for generators and retorts, oils, and purifying materials. The amounts of each consumed daily are entered on the daily manufacturing report. This is prepared from daily reports of the respective materials consumed. The daily manufacturing reports are next summarized in a monthly

TIME TICKET

Department No. ....

District No. ....

Name.. Employee No. ....

Date ....

Description of Work	Hours
Total Hours	
Amount	

CHARGE

Account No.	Amount	Account No.	Amount
Total		Total	

Form LXVI

DAILY TIME CARD

..................Gas Company

District No.

Department No. Week Ending..................193..

Employee No.	Name	Hours Worked								Rate	Total Due	Charged to Account No:				
		Mon.	Tu.	Wed.	Th.	Fri.	Sat.	Sun.	Total							Total

Form LXVII

DEPARTMENTAL WEEKLY PAYROLL REPORT

report. This report shows the production of gas and its by-products and the quantities of materials consumed.

These materials consumed are priced out at average prices and a summary journal entry is prepared charging the proper production expenses and crediting Materials and Supplies, which is the controlling or balance sheet account. In case the Materials and Supplies balance sheet account is a summary of several materials and supplies accounts carried in the general ledger, the subsidiary accounts will be credited. These subsidiary accounts are stock accounts and may have such titles as boiler fuel stock, retort fuel stock, gas coal stock, generator fuel stock, gas oil stock, enricher stock, and purifier stock. For example, if 20,000 tons of boiler fuel stock were consumed, the value of this fuel would be charged to boiler fuel and credited to boiler fuel stock, boiler fuel being a production expense account, and boiler fuel stock a materials and supplies account appearing in the general ledger.

Accounting for By-products or Residuals

By-products of gas production may be regarded as sources of income. The accounting for by-products is a problem concerning which there is no unanimity of opinion. In the production of gas, coke, tar, ammonia, and benzol are produced. This question might well be asked: What proportion of the total manufacturing costs is chargeable to each salable product? How much of the material, labor, maintenance, and other expense and depreciation charges should be allocated to the production of coke or tar? These are cost problems which cannot be satisfactorily answered. Similar ones crop up in many industries, including, among others, meat packing and oil refining.

In the manufacture of gas, however, the problem is partially solved in the following manner. A daily record is kept of the residuals produced and sold. At the end of each month, residuals produced are charged to stock accounts such as coke stock, ammoniacal liquor stock, etc., and cred-

ited to the residuals produced accounts. A separate account is usually maintained for each residual produced. These accounts are debited and credited at figures which represent the estimated sales values. There is no offsetting cost account. The cost of residuals is absorbed by the cost of the main product. Expenses of preparing, storing, handling, and delivering residuals are charged to the residual expense accounts. Residuals sold are credited to the residual stock accounts, and any variations of selling prices from original prices used in charging residual stock accounts will be handled through the residual produced account. Let it be assumed that a gas company produces 4000 tons of coke having an estimated market value of $11 per ton, that 3500 tons are sold at $13 per ton, and that the expense of preparing the coke for market, and handling, storing, and delivering it, was $1 per ton produced. The following entries expressed in debit and credit form are made in the proper books of original entry:

(1) Coke stock residual account..................	$44,000	
Coke residuals produced..................		$44,000
For coke production during the month, 4000 tons at $11.00 per ton. (Entry in general journal.)		
(2) Coke expense..............................	4,000	
Vouchers payable........................		4,000
For labor and other costs of preparing coke for market. (Entry in voucher register.)		
(3) Accounts receivable........................	45,500	
Coke stock residual account...............		45,500
Sale of coke as per sales invoices 3500 tons at $13 per ton. (Entry in sales register.)		
(4) Coke stock residual account..................	7,000	
Coke residuals produced..................		7,000
Adjusting entry required to credit residuals produced for the excess amount realized over the amounts credited at the time of production. (Entry in general journal.)		

Balances appearing in the residuals produced accounts are deducted from the total of the production expenses, which includes among others the expenses of preparing, handling, storing, and delivering residuals.

Depreciation

What is a fair return to a gas company? The determination of a fair return on capital and the rate to be charged customers to yield such a return is closely tied up with the subject of depreciation. If a rate is set to furnish a return on book value, the return may or may not be fair, depending upon the amount of reserves created to offset depreciation. Excessive reserves create hidden or secret reserves. Inadequate reserves may result in the payment of dividends from surplus or capital when the intention is to pay them out of earnings.

The calculation of depreciation of each item of equipment owned by a gas company would be an exceedingly difficult task. Various expedients are employed to overcome this obstacle. Experience enables a company to determine upon a rate which will provide for depreciation charges and permit it to renew its equipment or replace it when it is no longer efficient. The rate of depreciation may be a percentage of the total value of fixed assets or a percentage of gross revenue. An entry is made monthly, debiting either depreciation or retirement expense, and crediting a depreciation or retirement reserve account. When equipment is discarded, the original cost plus cost of dismantling, less salvage, is charged to the reserve account and credited to the asset discarded. The depreciation or retirement expense account is segregated from the operating expense accounts and appears under the income accounts listed in the forepart of this discussion.

Utility plant which is rendered unfit for use because of fire, obsolescence, or retirement, and for which depreciation reserves have not been provided, becomes a property loss chargeable against operation, unless the approval of the Commission under which the utility operates is obtained giving permission to carry it as a deferred debit on the balance sheet. If this permission is obtained the amounts thus charged must be subsequently amortized.

New Construction

The utility plant account is a controlling account, details of which appear in a subsidiary ledger. These accounts are divided into Intangible Plant, Production Plant, Storage Plant, Transmission Plant, Distribution Plant, and, last, General Plant Accounts.

New construction undertaken by a gas company is charged to Construction Work in Progress and upon completion is transferred to appropriate utility plant accounts.

CHAPTER XXVI

ACCOUNTING FOR REVENUE

ACCORDING to the latest census reports the number of consumers served by the 520 manufacturing gas companies in the United States was 8,849,553.[1] The average per company would be about 17,000. Of course, some of the companies cannot boast of serving anywhere near this number of consumers, but others, particularly those located in larger cities, number their consumers by the tens and hundreds of thousands. The vast majority of the consumers consists of householders and small business men, whose gas bills amount to only a few dollars each month. How to collect these petty monthly bills economically is one of the problems which has been successfully handled by the majority of gas companies.

The charge made to consumers for gas used is based on meter readings. The meter, situated somewhere on the premises of the consumer, registers the number of cubic feet of gas consumed. A charge of approximately $1 is made for each 1000 cubic feet used. Payment may be made either before or after consumption. If payment is to be made before gas is used, then a special meter known as a "prepayment" meter must be installed on the premises of the consumer. If payment is to be made after gas has been consumed, the "regular" meter is used. Most of the customers of a gas company are classed as either "regular" or "prepayment." Sales of gas are made on a flat-rate basis to a few individual consumers, to other gas companies, and to municipalities for street-lighting purposes. Miscellaneous revenues arise from rentals on properties owned and from sales of gas appliances, such as stoves, irons, and lamps.

[1] Department of Commerce, Bureau of the Census, Census of Manufacturers, Industry 703; Release of February 17, 1937.

The bookkeeping involved in recording the collection of miscellaneous revenues does not present any difficulties. Something, however, should be said about the methods employed in the accounting for sales of gas to both "prepayment" and "regular" customers.

Accounting for "Regular" Consumers' Sales

At regular intervals meter readers are sent out. They are supplied with forms or route books (Form LXVIII) con-

Address Name Location of Meter	Meter No. When Installed When Removed

Year 193..	Reading	Consumed (M.C.F.)	Amount Due	Year 193..	Reading	Consumed (M.C.F.)	Amount Due
Dec.				Dec.			
Nov.				Nov.			
Oct.				Oct.			
Sept.				Sept.			
Aug.				Aug.			
July				July			
June				June			
May				May			
Apr.				Apr.			
Mar.				Mar.			
Feb.				Feb.			
Jan.				Jan.			

Form LXVIII

PAGE—METER READER'S BOOK

taining the names, addresses, location of meter, and previous meter readings of all consumers in the district to which

they have been assigned. In some cases the meter reader calculates the gas consumption and the amount due for each consumer in his district, together with a summary of the total consumption and total amount due for the district for the period. These route books are then turned in to the office for checking and for billing. The total of all bills prepared for a given district should agree with the amount due from all consumers as reported by the meter reader. From the meter readers' forms postings may be made to a con-

DAILY CASH RECEIPTS

Date

Cashier..........

Checked By..........

Name	Accts. Rec. Regular	Collectors' Prepayments	Accts. Rec. Sundries	Consumers Deposits	Discounts	Miscellaneous	
						Amount	Account
Total							

FORM LXIX

DAILY CASH BOOK—RECEIPTS

sumers' ledger or a duplicate of the invoice sent the customer may be used for this purpose. A summary of all bills sent to customers in all districts is then made, which becomes the basis of a journal entry charging accounts receivable and crediting gas sales. A customer's invoice contains a stub or coupon which is detached when the invoice is paid. Receipts from customers are recorded in daily cash books which are later audited and summarized. Postings are made from the daily cash books to the consumers' ledgers if kept, or the duplicate invoice serving in lieu of the consumers' ledger is

taken from the files and marked paid. The open accounts on the consumers' ledger or the unpaid duplicate invoices provide a record of the delinquent customers' accounts and also a check upon the honesty of the cashiers in reporting all collections. A suggested form of a daily cash book is shown in Form LXIX.

Accounting for "Prepayment" Meter Sales

A coin deposited in the slot of a "prepayment" meter allows a certain number of cubic feet of gas to flow in. The

Date

Name of Collector

Bills		
Coins		
Total		
Over		
Short		
Collected as per Prepayment Meter List Attached		

FORM LXX

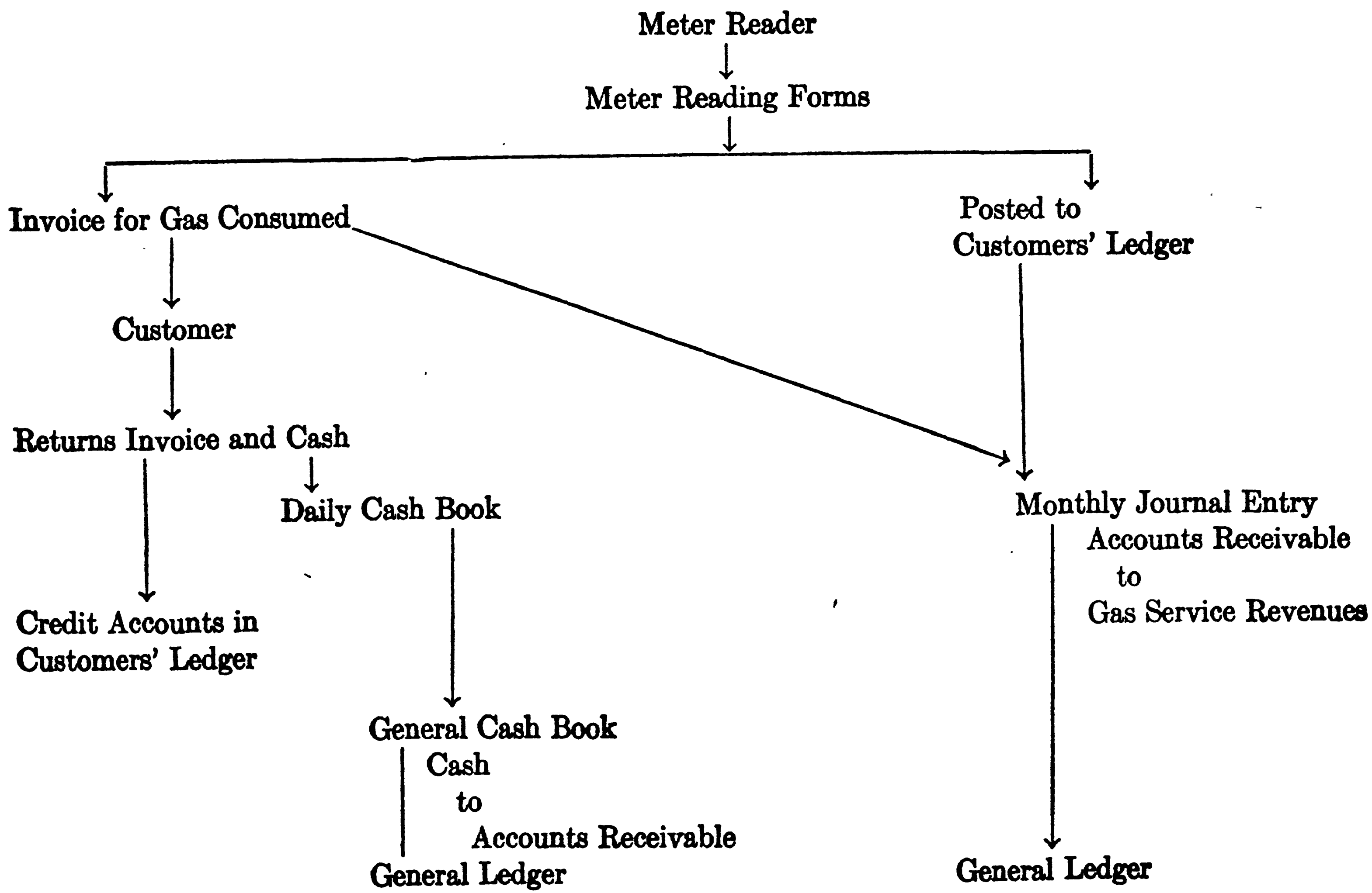
DAILY CASH REPORT—PREPAYMENT METERS

coins are collected from the meters by meter readers, who also take readings of the meters. From the meter readings charges are posted to the accounts of the consumers in a "prepayment" consumers' ledger. The money collected by the prepayment meter readers is recorded on their daily cash reports (Form LXX).

From the list of prepayment meters which have been inspected and coins removed the consumers are credited with the amounts collected. Under this plan of accounting for revenue, consumers' accounts are either balanced or show credit balances. The credit balance represents the excess collected over the charge indicated by the actual gas consumed; or, expressed in another way, the money dropped into the slot was sufficient to supply a greater quantity of gas than was consumed up to the day the meter readings were taken. At the end of the month entries are made to record the revenues from "prepayment" sales. The amount of the journal entry is based on the total debits to the consumers' accounts in the "prepayment" consumers' ledger, or upon the totals of the meter readers' cash reports. The entry involves a debit to accounts receivable and a credit to prepaid gas sales. Reference to the statistics in Chapter XXIII will give some indication as to the relative importance of the accounting for prepayments as contrasted with regular meter accounting. Less than 2 per cent of the meters in use are of the prepayment type.

The diagram on page 325 shows the main steps taken in accounting for revenue derived from "regular" consumers.

A reasonable length of time is allowed for the payment of gas bills. At the expiration of the period of grace, a list of delinquents is prepared and sent to the collection department. If payment is not forthcoming, the gas supply is shut off. Prompt settlement of consumers' invoices is encouraged by gas companies, either by offering a discount for prompt settlement or by penalizing the consumer if he fails to pay by a certain date. This penalty may take the form of adding to the regular tariff a fine based on the amount of the invoice or on the number of cubic feet of gas consumed.



FORM LXXI

ACCOUNTING FOR REVENUE

Merchandise and Jobbing Revenue

Invoices are made out to cover any sales of ranges, heaters, or other gas appliances sold to consumers. A charge is made for connecting the appliance to the gas piping on the consumers' premises. These invoices are recorded in a columnar sales book or register (Form LXXII). Costs are

SUNDRY SALES REGISTER

Date	Inv. No.	Name	Sundry Accts. Rec. Debit	Appliance Sales Credit	Coke Sales Credit	Other Residual Sales Credit	Cost of Appliance Sales Debit	Sundries	
								Amount Credit	Account
		Totals							

FORM LXXII

SUNDRY SALES REGISTER

likewise recorded in the sales book or some other record, so that the profit or loss arising through sales of various kinds of merchandise may be ascertained.

CHAPTER XXVII

SUMMARY OF ACCOUNTING RECORDS

THE following are the main books of original entry kept by gas-manufacturing companies:

(1) Voucher register.
(2) Payroll summaries.
(3) Cash receipts register.
(4) Cash payments or check register.
(5) Sundry sales register.
(6) Daily cash receipt book.
(7) General journal.

The following books of final record are also kept:

(1) General ledger, supported by the following subsidiary ledgers:
   (*a*) Utility plant ledgers.
   (*b*) Accounts payable ledger (if one is kept in addition to voucher register).
   (*c*) Materials and supplies ledgers.
   (*d*) Operating expense ledgers.
   (*e*) Consumers' ledgers, both "prepayment" and "regular."
   (*f*) Capital stock ledger.
   (*g*) Investment ledger.
   (*h*) Consumers' deposit ledger.

Other books may be made necessary by the volume of business transacted and the problems peculiar to each concern. The above records are supported by a number of subsidiary records, such as invoice registers, route books, production reports, material requisitions, purchase orders, analysis sheets, statistical reports, and revenue reports.

If the territory served is large and consumers are numerous, district offices may be established. These offices relieve the general office of a great deal of detail by carrying district accounts receivable ledgers for gas and for appliances sold, district sales books, and district cash books. Daily reports rendered by them are summarized and recorded by the general office through the medium of journal entries.

The use of subsidiary ledgers involves columnarization of books of original entry. In many instances columns of items appearing in the books of original entry are analyzed on so-called analysis or distribution sheets, and are posted from these sheets to subsidiary ledgers. For example, a large company carries in its voucher register a column headed "Operating Expenses," subdivided into account number, and amount. Its material, labor, and maintenance accounts, covering operating expenses, are very numerous. As a result, operating expenses are extended from the vouchers into the operating expense column. At the end of each month the column is analyzed and posted to the various operating expense accounts from the analysis sheet. Hence all postings appearing in the general and subsidiary ledgers are based either on entries appearing in the books of original entry or upon analyses of entries.

Journal Entries

The great amount of detail involved in gas-company accounting is summarized and journalized monthly. The following reports and journal entries are among the more important.

(1) Stores issued—a summary of requisitions honored

Sundry Operating Expenses
to
Materials and Supplies.

(2) Departmental payrolls—a summarization of expenses incurred in connection with payroll liability. Journal entry is made only if not recorded through a voucher register or payroll analysis.

Sundry Operating Expenses
to
Payroll.

(3) Monthly production reports showing consumption of fuel and enricher stock and production of residuals.

(a) Sundry Operating Expenses
i.e., Boiler Fuel Expense
Retort Fuel Expense
Coal Carbonized Expense
Coal Gas Enricher Expense
to
Materials and Supplies
i.e., Boiler Fuel Stock
Retort Fuel Stock
Gas Coal Stock
Enricher Stock

(b) Residual Stock
to
Residuals Produced.

(4) Summary of gas consumed monthly from meter readings or invoices rendered or Consumers' Ledgers.

Accounts Receivable
to
Gas Service Revenues

(5) Monthly depreciation—involving an average rate to cover all equipment or a certain percentage of operating revenues
Sundry Operating Expenses
to
Depreciation Reserve.

(6) Expense apportionment—involving an equitable distribution of rent, and light, telephone, and stores expenses, etc., made to departments benefiting by these expenditures.

The above journal entries do not cover all possible journal entries which might be made by a gas company. Other journal entries involving important changes in financial and operating accounts will be made as occasion demands.

Books of Final Record

Of the books of final record many will be recognized and the purpose of them understood. Brief reference will be made therefore to only two of the ledgers listed.

The utility plant ledgers contain the details of the fixed capital owned by the company. If the company organizes its operations on a district basis, the ledgers will record the fixed assets according to districts. Accounts will show the kind of asset, street location, date of installation, new construction authorized and completed, and the valuation placed on the various assets discarded for one reason or another.

In the consumers' deposit ledger appear the names of the individuals from whom the company has collected a deposit as a guarantee for the payment of bills to be rendered. When a consumer requests the services of the gas company he is asked to make a deposit. If the deposit is made, the consumer is given a receipt. At intervals his account is credited with interest. Upon payment of the final gas bill rendered, or removal from the territory served, or when credit is firmly established, the consumer is refunded the amount of his deposit together with interest additions upon the surrender of the receipt given him at the time he made the deposit. The total of the accounts in the consumers' deposit ledger should always be in agreement with the general ledger account, Customers' Deposits.

Use of Machinery in Recording Accounting Transactions

Before dismissing the subject of gas-company accounting, attention should be called to the fact that many gas companies withing recent years have been quick to recognize the advantages which accrue through the use of machinery in the recording of their transactions. The exceedingly large number of creditors, customers, and employees of a gas company has resulted in the extension of the use of machinery in the handling of these transactions. Invoices received are coded and punched cards prepared therefrom. These punched cards are summarized on tabulating machinery enabling the company to secure the total charges and credits for any period or for any district very readily Machinery

is also used in the compilation and classification of payroll and stores information. Bill printing, key punch machines, and tabulator devices are used for the recording of revenue and the accumulation of operating expenses. In many instances, general and subsidiary ledgers are kept by machinery. The data assembled, either with or without the aid of machines, are important in the preparation of accounting reports and statistics furnished to the various public service commissions.

QUESTIONS AND PROBLEMS

(a) Questions

1. What are the principal accounting problems confronting a company manufacturing and distributing gas?

2. Explain the method of ordering and recording purchases followed by a gas company.

3. Outline a plan of accounting for metered sales of gas to domestic consumers which will reduce to a minimum the possibility of loss through theft.

4. Explain the method used in accounting for labor required for new construction.

5. Into what groups may the operating expenses be classified? What is the basis for such groupings?

6. Explain the following terms: stock residual accounts, residuals produced, residual expense, income account, earned surplus account.

7. Explain in detail a method to be used by gas companies in accounting for by-products.

8. A gas company produced 15,000 tons of coke during the month of April. It was estimated that this could be sold for $7 per ton. The expenses of handling and preparing the coke for market amounted to $4500. During the month, 5000 tons of coke were sold at $6 per ton. Give the journal entries necessary to record the above information on the books.

9. What are the main books kept by gas-manufacturing companies? Classify them into books of original entry and books of final record.

10. Classify the following expenses of a gas plant, placing each item in the classification to which it belongs:

Boiler fuel.
Residuals expense.
Operation of meters.
Gas-mixing expenses.
Franchise requirements.
Customers' billing and accounting.
Salaries and commissions.
Maintenance of storage facilities.
Transmission operations.
Producer gas fuel.
Maintenance of communication equipment.
Demonstrations
Uncollectible accounts.
Operation supervision and engineering.
Removing and setting meters.
Maintenance of services.
Purification supplies.
Liquefied petroleum gas.
Gas purchased.
Pumping and regulating expenses.
Distribution maps and records.
Maintenance of street-lighting equipment.
Commissions paid under agency sales contracts.
Meter reading.
Expenses of general officers.

11. Explain the following accounts of a gas company:

(*a*) Amortized debt discount and expense.
(*b*) Clearing accounts.
(*c*) Extraordinary property losses.
(*d*) Prepayments.
(*e*) Retirement work in progress.

(b) Problems

1. The Consumers' Gas Company produced 10,000 barrels of tar as a result of its operations in the manufacture of illuminating gas. It was estimated that this would sell for $12.00 per barrel. Expenses of preparing, storing, and handling of this by-product amounted to $3500. The company sold 5000 barrels at $11.00 per barrel. How would these facts be recorded? What amount would be deducted from total production expenses?

2. The uniform classification of accounts for gas utilities prepared by the National Association of Railway and Utilities Commissioners provides the following classification of accounts:

100 Assets and other debits.
200 Liabilities and other credits.
300 Utility plant accounts.
400 Earned surplus accounts.
500 Income accounts.
600 Operating revenue accounts.
700 Operating expense accounts.

Using the above numbers, indicate opposite each of the following accounts the group to which it belongs in the above classification:

Account	*Group Number*
Residual refining equipment	______
Accrued utility revenues	______
Credit investigations and records	______
Producer gas equipment	______
Prepayments	______
Amortization of premium on debt—Cr.	______
Interest revenues	______
Dividend appropriations	______
Unamortized debt discount and expense	______
Interest charged to construction—Cr.	______
Special services	______
Extraordinary property losses	______
Benches and retorts	______
Property losses chargeable to operations	______
Retirement work in progress	______
Interdepartmental rents	______
Utility plant sold	______
Residential sales	______
Franchise requirements	______
Unamortized premium on debt	______
Miscellaneous non-operating revenues	______
Mains	______
Depletion	______
Injuries and damages	______
Customers' advances for construction	______
Miscellaneous credits to surplus	______
Miscellaneous reservations of net income	______
Servicing of customers' installations	______
Laboratory equipment	______
Interdepartmental sales	______
Reserve for uncollectible accounts	______
Uncollectible accounts	______

3. The Consumers' Gas Company has on its books a fixed capital account entitled, "Water Gas Generator Equipment." This account has been charged with the cost of sets and accessories devoted to the production of water gas, including foundations and settings, generators, carburetors, superheaters, seals and piping, blast apparatus, oil and steam-supplying apparatus, oil heaters, etc.

A unit costing $100,000 is replaced with more modern equipment costing $150,000. The cost of dismantling was $5000, and the material salvaged from the old unit was sold as scrap for $10,000. A depreciation reserve of $75,000 had been set up against it.

Give the journal entries necessary.

What disposition will be made of the balance in the property abandoned account?

4. The following is the trial balance of the Consumers' Gas Company as of December 31, after all adjustments have been made. You are requested to prepare:

1. Balance sheet.
2. Income account.
3. Surplus account.

ADJUSTED TRIAL BALANCE—DECEMBER 31.

Accounts payable		$195,300
Accounts receivable	$270,600	
Capital stock		3,300,000
Cash	187,000	
Coal gas production expenses	360,300	
Customer expenses	64,800	
Customers' deposits		4,300
Dividend appropriation—Common stock	264,000	
Dividends declared		66,000
Public utility plant	11,866,200	
Residential sales		2,461,200
Gas purchased	140,900	
General and miscellaneous expenses	470,800	
Interest earned		1,800
Interest on long-term debt	303,700	
Bonds payable		6,850,000
Materials and supplies	131,200	
Merchandise and jobbing sales		23,600
Public street-lighting sales		183,200
Sales promotion expenses	74,300	
Notes payable		550,000
Payroll accrued		4,100
Earned Surplus—end previous year		453,800
Prepayments	6,100	
Utility plant adjustment	84,000	
Depreciation reserve		1,143,600
Street-lighting expenses	32,100	
Miscellaneous general expenses	94,800	
Transmission and distribution expenses	89,200	
Uncollectible bills	1,500	
Water gas production expenses	630,900	
Work in progress	164,500	
	$15,236,900	$15,236,900

PART VII

RAILROADS

CHAPTER XXVIII

THE RAILROAD AND ITS ORGANIZATION

Development

THE first railroad in the United States was constructed about a century ago. Today there are approximately 250,000 miles of railroad in this country, representing total assets of more than $28,000,000,000.

In 1887 the Interstate Commerce Commission was formed to supervise railroads engaged in interstate commerce. At first the powers of this body were very meager, but as years passed, its authority gradually grew stronger and stronger. In 1906 the Hepburn Act was passed. This gave to the Interstate Commerce Commission the right to prescribe uniform accounting methods for transportation agencies engaged in interstate traffic, recognizing the fact that public regulation of industry can be made more effective through the control of accounts. The Interstate Commerce Commission, after a study of the various systems, established a classification for the accounts of the railroads. In 1914, the classification was revised; and a further revision was made, effective January 1, 1936.

The uniform system of accounts which has been prescribed by the Interstate Commerce Commission is the basis for all railroad accounting. In the development of this uniform system the commission has been assisted by the Accounting Division of the Association of American Rail-

roads. The present structure of accounting classification may be said to be a product of the efforts of the accounting officials of the railroads and of the members of the Interstate Commerce Commission.

Few of us realize that the revenue of a railroad company is made up of thousands of items, comprising passenger fares and freight charges, and that expenditures are likewise made up of thousands of items. We are not aware of the intricacies of the vast machinery which handles the details of the gathering and expenditure of this money. In order that facts in connection with the procurement of equipment and plant, and the costs entailed in the rendering of specific classes of service, may be available for the management of the railroad, the investor interested in railroad securities, and the public, it is essential that a proper system of accounting be employed. Only by means of a good accounting system can the relationship of the freight and passenger rates to the costs of operation and maintenance be determined.

Organization

In order that the position occupied by the accounting department in the railway organization may be understood, it is necessary to mention briefly the organization of the various other departments of a railroad. A large eastern railroad is organized departmentally as follows: executive, finance, operation and maintenance, passenger traffic, freight traffic, legal, purchasing, real estate, valuation, and accounting. The organization of each department is in general as follows: The executive department consists of the president, vice-presidents in charge of one or more of the foregoing departments, and in addition other officers such as the secretary, treasurer, comptroller, purchasing agent, and general counsel. A vice-president is in charge of finance and corporate relations. He is assisted by a treasurer and a chief of corporate relations. The primary duties of this department center around the proper handling of cash, the issuance and retirement of securities, and the acquisition and consoli-

dation of affiliated companies. The vice-president in charge of the operation and maintenance department is assisted by a general manager, general superintendent of transportation, general superintendent of motive power, chief engineer of maintenance of way, and superintendent of telegraph and signals. This department, as can be readily seen from its organization, has charge of transportation, engineering, motive power, and rolling equipment. The passenger traffic department has, in addition to a vice-president, passenger traffic managers, general passenger agents, and district passenger agents. The organization of the department of freight traffic corresponds very closely to the passenger traffic department. The principal duties of the traffic departments are the soliciting of traffic and the preparation and filing of tariffs. The general counsel heads the legal department, which has jurisdiction over claims and other legal problems. His chief assistants are the general solicitors and district solicitors, general attorney, and chief claim agents. The purchasing department is controlled by a vice-president assisted by a general purchasing agent, stores manager, and other storekeepers. The vice-president in charge of real estate is assisted by real estate agents, who supervise the purchase, sale, and holdings of all real estate. The valuation department is directed by the valuation engineer, and is interested in bringing valuations of all properties up to date. The valuation engineer works in close co-operation with the Interstate Commerce Commission. The accounting department is presided over by the comptroller. His assistants are the auditor of disbursements, auditor of freight traffic, and auditor of passenger traffic.

The Accounting Department and Its Function

The volume of transactions handled by a railroad is enormous. It is important from an accounting standpoint that these transactions be accurately recorded. Therefore provision must be made for the proper reporting to a central

office of all transactions which take place at all points on the system. Further, the reports so received must be checked for errors and evidences of dishonesty. Upon the completion of this checking or auditing work, summaries must be prepared prior to the actual entering of the transactions in the controlling financial records. Therefore, the work to be performed for and by the accounting department before operating and financial results can be ascertained consists, first, in the preparation and forwarding of reports showing revenues received or accrued at each station; second, in the checking or auditing of the reports so received; and, finally, in the summarization and recording in the books of original entry. The principal functions of the accounting department are to protect the revenues of the company and to determine whether all revenues which should be accounted for have been properly recorded and whether all disbursements are made upon proper authority. Hence much of the work of the accounting department is primarily concerned with auditing and bookkeeping. As the auditing work is performed prior to the bookkeeping, it will be well to discuss this phase of the accounting first.

The greater portion of railroad transactions center around the receiving of revenues and the disbursements of cash. The auditing work performed can be divided as follows:

(*a*) The auditing of freight revenues.
(*b*) The auditing of passenger revenues.
(*c*) The auditing of miscellaneous revenues.
(*d*) The auditing of disbursements.

The auditor of freight traffic audits the accounts with other railroads and determines what is owing to them and by them for interline freight traffic. He also charges the railroad station agents and other agents with the amounts they have collected or should collect on waybills prepared. The auditor of passenger traffic audits the agent's reports, and the accounts with other railroads, and determines what

is owing to and by other railroads for passenger traffic so far as they relate to passenger or miscellaneous revenues. The auditor of disbursements audits all invoices and payrolls involving the expenditure of company funds. The detail duties performed by these officials will be described in the discussions that follow.

CHAPTER XXIX

RAILROAD AUDITING

The Auditing of Freight Revenue

In order to explain properly the various steps in the shipment of goods by freight and the effect on the work of the accounting department, it will be necessary to outline the procedure from the time that goods are delivered to the railroad by a shipper until the shipment reaches its destination. Upon the delivery of freight to a railroad for shipment, a bill of lading is made out in triplicate by the shipper. The bill of lading contains the name of the consignee, the destination, and a description of the commodity or commodities being transported. The bill of lading serves as a receipt to the shipper and as a contract binding the railroad to carry the goods subject to conditions printed on the back. The original is sent to the consignee; the shipping order, which is the second copy, is retained by the railroad; the memorandum, or third copy, is kept by the shipper. A waybill (Form LXXIII) is prepared by the freight agent from the shipping order. This is a form which is regularly numbered and dated, showing destination, name of shipper, name of consignee, description of freight, weight, rate, and amount of charges, separate columns being provided to show whether charges are to be collected at destination or whether they have been prepaid. The waybill, like the bill of lading, is prepared in triplicate. One copy is sent to the auditor of freight traffic, one copy is retained by the issuing agent, and the third copy usually goes with the shipment to the station agent at the point of destination. In addition to a copy of the waybill of each shipment, daily reports of waybills received (Form LXXIV) and of waybills

FREIGHT WAYBILL

Stop this car at for

Gross Weight of Car and Contents for Engine Rating Tons

Car Initials and Number

Transferred to

At

To— (Station) (State)

ROUTE (Show Each Junction and Carrier in Route Order to Destination of Waybill. Indicate by Check Mark whether Shipper's or Agent's Routing).

Shipper's Routing

Agent's Routing

Consignee, Address (Final Destination and Additional Routing).

Instructions Regarding Icing, Ventilation, Milling, Weighing, Etc. If Iced, Specify to Whom Icing Should be Charged.

1st Transfer	2nd Transfer

Description of Articles and Marks	*Commodity No.

Destination Agent's Freight Bill No.

THIS WAYBILL SHALL BE USED FOR ALL SINGLE CONSIGNMENTS, LESS CARLOAD, AND WHETHER LOCAL OR INTERLINE

Date	Waybill No.

From— (Station) (State)
Number
( )

Full Name of Shipper, Origin and Date, Original Car, Transfer Freight Bill and Previous Waybill Reference When Rebilled.

Length of Car		Marked Capacity of Car		Stenciled Wgt. of Car
Ordered	Furnished	Ordered	Furnished	

Indicate by Symbol in Column Provided (*) How Weights Were Obtained

R—Railroad Scale
A—Weighing Bureau or Agreement
T—Tariff, Classification or Minimum
S—Shipper's Agreement or Tested Weight
E—Estimated (weigh and correct)

Weighed

At ....
Gross ....
Tare ....
Allowance ....
Net ....

3rd Transfer	4th Transfer

Weight	*	Rate	Freight	Advances	Prepaid

All yard stamps to be placed on back of the waybill in spaces provided

Junction forwarding agents will show junction stamps in the space and order provided below

First Junction	Second Junction	Third Junction	Fourth Junction

Destination agent will stamp herein the date reported

Additional junction agent's stamps must be shown on back of waybill in spaces provided

FORM LXXIII.—WAYBILL

DAILY REPORT OF WAYBILLS RECEIVED

Daily Report of.....................................Waybills Received
Local or Interline

At.......................Station, on the..................Day of.............19....

Waybill		Car Initials and Number	Station From	Initials of Billing Road	Kind of Freight	Weight	Debit		Credit	Freight Bill Number	Consignee	Total to Collect on Each Bill	Date Paid
Date	Number						Freight	Advances	Prepaid				

FORM LXXIV.—DAILY REPORT OF WAYBILLS RECEIVED

forwarded (Form LXXV) are sent to the auditor of freight traffic by the agent of each freight station. These forms may be modified to meet the needs of the individual carrier. Separate reports of freight received and of freight forwarded are prepared for local and for interline shipments. Local shipments are shipments between two points on a company's own line, whereas interline shipments are those handled by two or more companies. These reports are summaries in columnar form of the information contained

DAILY REPORT OF ________ (Local or Interline) WAYBILLS FORWARDED

From ________ Station, for the ________ Day of ________ 193__

Waybill Number	Car Initials and Number	Station to	Initials of Destination Road Billed to	Kind of Freight	Weight	Freight	Credit Advances	Debit Prepaid
Totals								

Form LXXV

DAILY REPORT OF WAYBILLS FORWARDED

in the waybills. The reports of local waybills forwarded are checked against the reports of waybills received and those unaccounted for are investigated. The reports of interline waybills forwarded serve as checks on the foreign line returns of revenues due the railroad concerned.

As each waybill forwarded should be received by the agent at destination in due course, it will be noted that two copies of each waybill are sent to the auditor of freight traffic. In the event that goods do not reach their destination within a reasonable time, a tracer is started for them.

Upon receipt of the waybills, the auditor inspects them carefully to see that they have been prepared properly, that the correct freight rate has been applied, and that charges have been calculated correctly. In order to secure statistical information for report purposes, the waybills are sent to the tabulating division of the accounting department, where cards are punched for weight, freight, advances, prepayments, etc. When these cards have been tabulated, they should coincide in detail with the agents' reports.

It has been previously stated that waybills received are classified and reported to the auditor of freight traffic as either local waybills or interline waybills. The interline waybills received are next abstracted. An abstract may be defined as a summary of interline waybills received covering shipments originating at a given station on a foreign railroad and consigned to a given station on the destination railroad, over a particular route.

As it is necessary to determine what part of the freight charges collected shall go to each railroad handling a given interline shipment, the abstracts (Form LXXVI) are sent to an interline bureau which determines the percentages due each line and notes them upon the abstract. These percentages are indicated by regular interline tariffs or figured on a mileage or other basis as agreed upon by the carriers' traffic departments. There may be an additional charge called an arbitrary or terminal allowance which accrues to the originating or terminal road or both. The percentages determined upon for each road are applied to the freight charges shown on each abstract, and the amount due to each road is determined. The abstracts are next summarized on division of revenue sheets (Form LXXVII). Separate division of revenue sheets are prepared for each line which is entitled to a share of the freight charges collected. A number of division of revenue sheets may be necessary for one road. In this case a recapitulation of the division of revenue sheets would be prepared to determine the total amount due that road. It should be understood

that payments to other lines come from the line delivering the shipment, as it is customary for that line to collect the freight charges. Then, too, it is only the last carrier

THE EAST & WEST RAILROAD

No.________

ABSTRACT OF INTERLINE WAYBILLS RECEIVED

Month of Settlement 193	From Stations on	DIVISIONS	PROPORTIONS
VIA AND			
VIA AND			
VIA AND			
VIA AND			
VIA AND			
VIA AND			
VIA AND			

From________

To________
No. Station

COMMODITY________

GROUP________
FOOTED________
CALCULATED________

WAYBILL		CAR		I. R.	Weight	Freight	Advances	Prepaid
Date	Number	Initials	Number					

FORM LXXVI

ABSTRACT OF INTERLINE WAYBILLS RECEIVED

which can be sure that final delivery has been made. For this reason, where prepayments are made, the final or delivering road will charge the originating road with the

Division of Revenue—Interline Waybills

Freight Accounting Department

Division of Revenue as shown on Interline Waybills from Stations on line of.................... R. R. *Prepared*....................

Route.............................. Month of............................ *Checked*....................

Sheet No....................

Abstract Number	From	To	State or Interstate		Com.	Weight	Freight	Advances	Prepaid	Proportions							

Form LXXVII
DIVISION OF REVENUE—INTERLINE WAYBILLS

entire amount of the prepayment and then will credit it and any intermediate roads with their share of the freight revenue earned. A notification would be sent to each road showing the amount to which it was entitled as indicated on the division of revenue sheets. This is known as a summary of interline accounts of freight received (Form LXXVIII). Similar summaries are received from foreign railroads showing revenue due on freight forwarded. The net amount due to or by each other railroad is determined. A monthly journal entry is made which shows the net amounts due the accounting railroad as Traffic and Car Service Balances Receivable and the net amounts due others as Traffic and Car Service Balances Payable.

As a result of the activity of the work of the auditor of freight traffic, many errors are brought to light and corrections must be made on local waybills, on agents' reports, and on summaries of interline waybills. These errors are reported to those concerned and adjustments made during the ensuing month.

Each agent, in addition to rendering daily reports of waybills received and of waybills forwarded, must keep a record of all cash received by him, a record of all amounts due to the railroad because of credit extended to shippers whose names appear upon an authorized credit or accommodation list, and a record of all remittances made by him to the treasurer of the railroad. These records form the basis of daily or periodic reports rendered to the auditor showing the status of his accounts (Form LXXIX). The amounts due him by shippers to whom credit has been extended must be shown in detail in an accompanying statement. The audit of these reports is comparatively simple, as the amount chargeable against an agent is obtained from his daily waybill reports. Cash remittances are checked against the treasurer's report of remittances received from agents. Other amounts appearing on the agents' daily or periodic balance sheet would have to be supported by properly authorized vouchers. From time to time traveling auditors visit the agencies to satisfy themselves as to the

Summary Interline Accounts of Freight Received

....

....

.... Month of............19..

Your Intermediate Proportions of Freight Way-Billed by Roads Shown								
			Brought Forward			Brought Forward		
Carried forward			Carried forward			Carried forward		
			Brought Forward					
			Total intermediate					

	Current						Correction Account						Totals					
	Debit			Credit			Debit			Credit			Debit			Credit		
Your Proportion of Freight Waybilled by Your Road																		
Advances Waybilled by Your Road	xxx	xxx	xx															
Prepaid Waybilled by Your Road				xxx	xxx	xx												
Your Intermediate Proportions																		
Balance Due Your Road				xxx	xxx	xx				xxx	xxx	xx				xxx	xxx	xx
Balance Due This Road	xxx	xxx	xx				xxx	xxx	xx				xxx	xxx	xx			
Total																		

..................................19.. ....Auditor Freight Traffic

Form LXXVIII.—SUMMARY INTERLINE ACCOUNTS OF FREIGHT RECEIVED

accuracy of the agency records. The balance sheets sent in by the agents as of the last day of the month are audited and become the subsidiary agents' ledger.

AGENT'S DAILY OR PERIODICAL BALANCE SHEET

				DEBIT			CREDIT		
Previous Balance									
Errors									
Through Freight Traffic Forwarded									
" " " Received									
" " " Corrections									
Local Freight Traffic Forwarded									
" " " Received									
" " " Corrections									
" " " Miscellaneous									
Freight Traffic Relief Items									
Passenger Traffic (Through, Local, and Telegraph)									
Drafts Issued (must be shown in detail below)									
Remittances (must be shown in detail below)				X	X	X			
Unsettled Bills				X	X	X	X	X	X
Less Over and Advance Collections				X	X	X	X	X	X
Total				X	X	X	X	X	X
Cash on Hand				X	X	X	X	X	X
Balance to Next Report	X	X	X						
	Totals								

REMITTANCES IN DETAIL								DRAFTS IN DETAIL		
STATION No	DATE	CASH		CHECKS		TOTAL		NUMBER	AMOUNT	

Number unapplied C.F.B. Telegrams ______

" " Auditor's Debit c/ns ______

" " " Credit c/ns ______

Agent

Date

Station Number and Name

FORM LXXIX

AGENT'S DAILY OR PERIODICAL BALANCE SHEET

The reports of waybills received and forwarded are summarized, furnishing the information enabling the auditor to make a monthly entry charging agents' control account and crediting revenue. Postings are made from the treasurer's

record for agents' remittances received. The balance of the agents' control account should be in agreement with the agents' ledger.

In connection with the reports submitted to the Interstate Commerce Commission, a railroad must gather information concerning tonnage. Form LXXX is shown to indicate the type of report to be rendered; it pertains to freight commodity statistics. These statistics are built up by the tabulating division of the accounting department.

Auditing of Passenger Revenue

The amount collected for transportation in passenger cars between the various points on a railroad, under published tariffs on file with the Interstate Commerce Commission, is known as passenger revenue. The auditing of this revenue is usually handled by a separate department under the jurisdiction of the auditor of passenger traffic. This department is usually divided into a number of distinct units, dealing with local tickets, interline tickets, and with inter-divisional tickets. Accounting for passenger revenue is dependent upon tickets of various classes. Each class of ticket must be accounted for separately. A rigid control of the tickets and of the cash collected necessitates an efficient system of auditing in connection with passenger revenue.

In order to discuss the auditing of passenger revenue, the procedure in connection with the sale of tickets must be considered. Tickets are sent to each agent, who is obliged to render reports showing tickets sold and tickets on hand. From these reports it is possible to determine when additional tickets shall be sent to the agent. When tickets are sent, an invoice accompanies them, and an entry is made in a ticket ledger charging the agent with the opening and closing numbers of each specific lot of tickets. Upon receipt of the tickets the agent signs the invoice and returns it to the auditor of passenger traffic. Tickets sold are credited

Class No.	Commodity Group or Class (a)	Revenue Freight Originating on Respondent's Road — Terminating on Line — Number of Carloads (b)	Revenue Freight Originating on Respondent's Road — Terminating on Line — Number of Tons (2,000 lbs.) (c)	Revenue Freight Originating on Respondent's Road — Delivered to Connecting Carriers — Number of Carloads (d)	Revenue Freight Originating on Respondent's Road — Delivered to Connecting Carriers — Number of Tons (2,000 lbs.) (e)
	GROUP I. PRODUCTS OF AGRICULTURE (C. L.)				
10	*Wheat,*				
20	*Corn,*				
30	*Oats,*				
40	*Barley and Rye,*				
41	*Rice,*				
42	*Grain, n. o. s.,*				
50	*Flour, Wheat,*				
51	*Meal, Corn,*				

Revenue Freight Received from Connecting Carriers — Terminating on Line — Number of Carloads (f)	Revenue Freight Received from Connecting Carriers — Terminating on Line — Number of Tons (2,000 lbs.) (g)	Revenue Freight Received from Connecting Carriers — Delivered to Connecting Carriers — Number of Carloads (h)	Revenue Freight Received from Connecting Carriers — Delivered to Connecting Carriers — Number of Tons (2,000 lbs.) (i)	Total Revenue Freight Carried — Number of Carloads (j)	Total Revenue Freight Carried — Number of Tons (2,000 lbs.) (k)	Freight Revenue (Dollars) (l)	Class No.
							10
							20
							30
							40
							41
							42
							50
							51

Form LXXX
FREIGHT COMMODITY STATISTICS

to the agent's accounts in the ticket ledger. The auditor of passenger traffic knows definitely at all times how many tickets are on hand in each station.

In addition to reports of local, interline, commutation, and other tickets sold, which are sent to the auditor of passenger traffic, every agent must forward reports of cash receipts to the treasurer. In order to prepare these reports properly, each agent must maintain records showing all tickets in his possession, sales records showing tickets sold, and cash records showing money received and remittances made direct or deposited in local banking institutions. Agents generally are obliged to send reports daily or periodically to the auditor of passenger traffic showing the revenue from passenger traffic. Ticket agents are also required to report monthly all ticket sales and cash remittances. Sales of local, interline, commutation, and other tickets must be reported on separate blanks. Form LXXXI is illustrative of the type of report required. Similar reports would be rendered monthly for round-trip tickets, excursion tickets, commutation tickets, etc. The passenger agents' reports are checked for errors by the auditor of passenger traffic, who must see that proper fares are reported. Summaries of all passenger agents' reports are prepared and are used as a basis for charging the agents and crediting passenger earnings. Miscellaneous revenues collected by the agents from parcel rooms, vending and weighing machines, traveler's insurance, etc., will be reported separately by the agents, and are then summarized to determine the credits to the miscellaneous revenue accounts. Remittances made to the treasurer by each agent are credited to his account. In auditing the agents' reports, care must be exercised to see that all tickets sold are properly accounted for and amounts due from the agents are properly extended. These results can be accomplished by checking tickets collected by conductors against the agents' reports of tickets sold. In this way any tickets sold out of numerical order will be brought to the attention of the passenger auditor.

THE EAST AND WEST RAILROAD

MONTHLY REPORT OF LOCAL TICKET SALES AT ______________ STATION

MONTH OF ______________

	FORM AND DESTINATION	STATE	ROUTE	Commencing Number	Closing Number	ISSUED	FARE	AMOUNT	BLANK BOOK TICKETS—VOID TICKETS—EXPLANATIONS, ETC.
	PRINTED ONE WAY								
	TOTALS								Agent's Signature ______________

FORM LXXXI

MONTHLY REPORT OF ONE WAY LOCAL TICKET SALES

Conductors' Ticket Collections

When tickets are collected by conductors, they are entered on a conductor's report and forwarded to the auditor's office, where they are distributed according to their class and point of issue and checked against the reports of the agent selling them. This process is a safeguard in that it insures a report from the agents of all tickets sold.

Conductors' Cash Collections

In addition to the revenue obtained from the sale of tickets at stations, cash collections are made by conductors upon trains from passengers who are unable to purchase tickets at stations. Upon a form known as a duplex cash-fare slip the conductor indicates by punch marks the stations between which the passenger is traveling. At the end of the day the conductor must render a report of duplex slips issued and cash collected. These slips are audited, and the amount due from the conductor is determined.

The audit of these slips is less satisfactory than the audit of tickets sold at stations, because of the dependence of the railroad company on the honesty of the conductor. It does, however, furnish sufficient information to enable the auditor of passenger revenue to determine the charges to be made against the conductors on account of cash received. The offsetting credit will be passenger revenue.

Another check, in addition to those exercised by the general office over the reports of the station agents, is that of the traveling auditor. It is the duty of this person to make periodic examinations of the accounts of all ticket agents to see that records are being kept in the manner prescribed by the central office, and to make certain that reports rendered reveal accurately all ticket sales.

Auditing of Miscellaneous Revenue

Although the principal sources of a railroad's revenue are freight and passenger earnings, some other sources of revenue

are very important. For example, receipts from express, mail, telegraph, telephone, excess baggage, milk traffic, sleeping cars, and switching services belong to this group. Express revenue is usually based upon the receipts of the express company operating over the railroad. The auditing or verification of this revenue is generally conducted by an independent organization acting for all railroads over which the express company operates under contract. A monthly journal entry is made debiting the express company and crediting express earnings. Mail revenue represents the earnings from the transportation of mails for the Government. The two most important factors to be taken into consideration in determining mail-carrying charges are distance and space allotted in railway cars. The United States Government, through the Post Office Department, fixes the scale of charges. It is necessary to make a journal entry each month charging the Post Office Department and crediting mail revenues. Telegraph and telephone commissions arise through contracts made by the railroad company with the telegraph and telephone companies respectively. These revenues, likewise, are entered upon the books monthly by charging the companies and crediting telegraph and telephone earnings. The auditing of revenue from excess baggage, sleeping cars, switching, etc., involves the checking of reports rendered by the railroad employees who have charge of the collection of revenues from these sources. The auditor of passenger revenue also audits the reports in connection with the operation of dining cars. The stewards' reports are checked against copies of meal tickets and menus. Again, journal entries must be made monthly crediting the respective revenue accounts and charging persons, departments, and companies for services rendered.

Apportionment of Passenger Revenue

An important function performed by the office of the auditor of passenger traffic is the analysis of the reports received monthly from the ticket agents. Since tickets sold

often include the transportation of passengers over the roads of other companies as well as over the home road, it is essential that the earnings from such sales be apportioned among the roads concerned. These revenues are divided on the basis of agreements between railroads. Usually the fares over each line form the basis although mileage over each line or other factors may be used. It is the auditor's duty to see that the rates employed are in accordance with those filed. When the amounts due each foreign road are determined, they are placed upon a division of passenger earnings sheet. This sheet is similar to the one used for the division of freight earnings.

Once a month the railroad company forwards a statement to the foreign roads setting forth tickets sold by the home company and the proportion of earnings due them for the month. If unusual service has been rendered, for example, in connection with the use of terminals, a constructive mileage basis is used. Journal entries are made to charge passenger agents and to credit passenger earnings with the sale of tickets during the month; and then passenger earnings must be debited and foreign roads and constituent companies credited with the amounts due as set forth on the division of earnings sheets.

Each passenger agent forwards to the auditor of passenger traffic a monthly balance sheet (Form LXXXII). The agents' reports of ticket sales by classes are compared with the agents' balance sheets. Remittances received by the treasurer from the agents are also checked against the balance sheet of the agents. Discrepancies between the agents' figures and the auditor's proof are investigated and adjusted. Any agent who combines freight and passenger duties forwards the balance sheet previously discussed (Form LXXIX) to the auditor of freight traffic. The auditor of freight traffic then forwards data relative to passenger activities to the auditor of passenger traffic. Amounts owing by agents can be secured by combining the balances due by freight agents and by passenger agents. This information is ob-

tained from the agents' balance sheets rendered the respective auditors.

Auditing of Disbursements

The auditor of disbursements is responsible directly for accounts payable covering materials, payrolls, and other

THE EAST AND SOUTH RAILROAD Division

AGENT'S MONTHLY BALANCE SHEET Station No. Station

Month of 193 (Personal signature required) AGENT

	Agent's Figures	Auditor's Figures	Debit	Credit
DEBITS To balance from last month				
" Errors " " "				
" Interline Passenger Traffic				
" Local Passenger Traffic				
" Commercial Telegraph				
" Drafts on Treasurer				
" Rents Chargeable				
TOTAL				
CREDITS By balance from last month				
" Errors " " "				
" Remittances				
Uncollected Bills				
Cash on Hand				
Total Balance to be carried to next report				
TOTAL				
Net Errors to be carried to next Monthly Balance Sheet				

This form must be made in triplicate by use of carbon paper. The triplicate copy should be made on plain paper and retained by agent. The printed copies should bear agent's personal signature and forwarded, without separating, to Auditor of Passenger Traffic.

FORM LXXXII

AGENT'S MONTHLY BALANCE SHEET

items. Expenditures by the treasurer for materials, payrolls, and other services rendered are made only upon properly approved documents previously audited by the auditor of disbursements. Supervision is exercised over all disbursement accounting, including disbursements which may be made by employees other than the treasurer.

No standard practices were observed in the early days of railroad operation with respect to disbursement accounting. The Interstate Commerce Commission later was given power over the method of accounting to be followed by railroads. An account classification has been provided, and regulations relative to the accounts are issued from time to time. These require that each railroad carefully distinguish between operating and capital expenditures. The bulk of the expenditures of a railroad are made for operating purposes. Further it may be stated that, of the operating expenses, material and labor represent the outstanding items.

Material

Purchases of material originate in requisitions on the purchasing agent by the respective department heads. Before an order is placed, stores on hand at various locations are examined to determine whether an excess exists. Such excess may obviate the necessity of ordering, involving only a movement from one point on the railroad line to another. If a purchase is necessary, an order is issued by the purchasing agent and sent to the prospective vendor, often accompanied by a standardized form of invoice. The invoice for material delivered is forwarded by the vendor to the auditor of disbursements, and the material is shipped to the storeroom where needed. All invoices must be checked for quantities, prices, extensions, and receipt of material. After checking is completed, the invoice is ordered paid by the auditor. All materials purchased are charged to the materials and supplies controlling account. Materials consumed during the month are reported by the various storekeepers and summarized on monthly reports (Form LXXXIII). The purpose of these reports is to classify the material used under the appropriate operating expense or road and equipment accounts, as required by the Interstate Commerce Commission. The primary operating expense accounts of a railroad are not placed in the general ledger but are grouped under the eight general heads set

forth in the discussion of account classification shown in the next chapter. The details of these accounts are set forth on distribution sheets or carried in subsidiary ledgers. Posting and closing of the general ledger are thus made possible without the necessity of posting to numerous detailed operating expense accounts. These detailed accounts, however, are important and appear in the annual reports.

Labor

Employees of a railroad generally are paid semi-monthly. Payroll sheets setting forth the name, hours or days worked, base rate, and total due each employee are prepared in the office of each department head. The arrangement of the data on the payroll sheets is in accordance with a prescribed classification. After the sheets are checked they are approved by the department head and forwarded to the office of the auditor of disbursements. It is the duty of the auditor to verify all figures and names by reference to sheets of the previous period and especially to see that the payrolls have been signed by the proper persons. It should be stated that attached to each payroll sheet received by the auditor is a statement, called the distribution of labor sheet (Form LXXXIV), distributing the items among the prescribed expense accounts. When there is a question as to the allocation of particular items, the auditor's office is called upon to determine the classification. When the payrolls have been approved as correct, they are signed by the auditor and forwarded to the office of the treasurer.

The payroll charges are assembled, classified, and summarized in a manner similar to that described for materials. From this summary, entries are made and posted to the general ledger, debiting each general operating expense account and crediting audited accounts and wages payable.

Payments are made to the employees either by check or in cash. In the former instance, charges for all checks paid and returned by the banks are made to special accounts; in the latter case, charges are made to the payroll officers

to whom the cash has been given; the accounts of the payroll officers are credited with all payments to the employees.

Other Disbursements

In addition to material and payroll disbursements, vouchers are issued for many other purposes, such as electrical services, other services, settlements with other railroads, redemption of tickets, claim settlements, taxes, rentals, pensions, payments to contractors, etc. Supporting bills are approved by departmental executives and forwarded to the auditor of disbursements. The procedure of auditing is similar to that for payroll vouchers.

Many disbursements made are charged to operating expenses or to road and equipment and subsequently adjusted. Agreements exist between the railroad on the one hand, and an individual or company on the other, whereby such individual or company agrees to reimburse the railroad for some part of the expense incurred. Bills are prepared for the amount, accurately checked, and forwarded to the debtor, entries thereof being made charging accounts receivable and crediting operating expenses or road and equipment. For example, such adjustments arise in those instances in which a railroad repairs a joint facility or places rolling stock of another road in condition, expenditures incurred being charged to operating expenses. These accounts are subsequently credited when the individual or company is billed for its proportionate share.

Capital Accounts

Other disbursements not represented by operating expense accounts are those disbursements classified as capital accounts. These are called "road and equipment accounts" and classified under three main headings: road, equipment, and general expenditures. Expenditures consequent upon additions and betterments to the property in the form of additional buildings or equipment, are properly chargeable as capital expenditures, and the distinction

between renewals, which are chargeable to expenses, and actual additions, must be carefully observed. Since unwarranted charges to "additions and betterments" increase the net results from operation, a most careful study of expenditures is necessary.

There may be differences of opinion as to the proper basis for the division of expense and capital items, but conservative action requires that part of each year's earnings be used for betterments. It has been suggested that a solution of the problem of the treatment of such charges for betterments is to be found in a comprehensive profit and loss account as distinguished from an income account. Such treatment is far preferable to that of including such charges in current expense accounts; the net earning capacity of a road, allowing for normal expenditures for maintenance, should be stated, and betterments should not be included as ordinary operating expenses.

That there may be no doubt as to the charges to capital accounts, the Interstate Commerce Commission has covered all unusual costs with the following:

"When the consideration given for the purchase or the improvement of property the cost of which is chargeable to the accounts of this classification is other than money, the money value of the consideration at the time of the transaction shall be charged to these accounts, and the actual consideration shall be described in the record in sufficient detail to identify it. The carrier shall be prepared to furnish the commission, upon demand, the particulars of the actual cash value of the consideration if other than money." [1]

Retirements and Abandonments of Property

Proper accounting for property retired has not until comparatively recent times received the attention which it deserves. But the Interstate Commerce Commission, while ascertaining the physical value of railroad properties, sought

[1] Interstate Commerce Commission, pamphlet, "Classification of Investment in Road and Equipment of Steam Roads," page 10.

to prescribe uniform methods of accounting for changes in the physical properties of all carriers. It was at one time the practice to disregard retirements of property, with the possible exception of equipment, so far as the accounting records were concerned. At the present time, when property is retired and replaced the practice is to credit the ledger value of such property to the investment account and concurrently the proper operating expense accounts are charged with the difference between the ledger value and the sum of the accrued depreciation, if any, plus the value of salvage recovered.

The value of the new property replacing that retired will be charged either to road or equipment at the prices prevailing at the time of replacement. This treatment of the accounts relates exclusively to property retired and replaced. Where property is retired and not replaced, the appropriate investment account is credited with the ledger value thereof and profit and loss account is charged with such value less accrued depreciation and salvage. A charge to operating expenses is entirely different from a charge to profit and loss, since the profit and loss accounts of a railroad are in reality surplus accounts, whereas operating expense accounts are charges against income.

If accurate records are not kept of all retirements, it will readily be understood that the investment accounts might be overstated by the amounts originally included therein to cover property retired, since the cost of new property acquired to replace that retired is also charged to the investment account.

Joint Facility Accounts

An interesting feature of railway disbursement accounting is the treatment of joint facility accounts. Tracks, yards, stations, and other facilities regularly controlled by one carrier but used by one or more other carriers are covered by these accounts. Reference to the classification of accounts shown in the following chapters will reveal three

types of joint facility accounts. Under the primary accounts for operating revenues will be found two joint facility accounts. In the group of primary accounts for operating expenses will be found additional joint facility accounts. In the income group of accounts as distinguished from operating revenues and expenses appear accounts for joint facility rent income and joint facility rents.

The modern agreement for the joint use of a facility calls for a rental based upon 100 per cent valuation of the facility to be used, and upon the extent of the usage thereof. Thus if a road was to use 40 per cent of the capacity of a terminal, the rental would be based upon 40 per cent of the value of such terminal. This basic rental would be credited to the joint facility rent income account of the company collecting such rents, and charged to the joint facility rents account by the company paying such rental. A railroad company may pay joint facility rents as well as receive them.

Since a tenant company pays on the basis of 100 per cent of the valuation of the joint facility, under the usual agreement, it is entitled to its proportion of the non-transportation revenue derived from the use of such joint facility. The amounts involved would be debited and/or credited to the joint facility accounts under the primary accounts for operating revenues.

The basic rental paid for the use of a joint facility is supplemented by additional charges to cover operating expenses applicable to the joint facility, together with a portion of the taxes thereon. The controlling carrier charges to the proper primary accounts in its operating expenses the cost of maintenance and operation, and charges the other users of the facilities such amounts as may be agreed upon; it credits the amounts so charged to other users, to special joint facility credit accounts established for the purpose and included as primary accounts in operating expenses. The object of this method of accounting being to preserve the integrity of the operating costs, the controlling carrier includes the total costs in its operating expenses. Since

the controlling carrier includes total costs in its primary accounts, and provides for the credit representing amounts charged joint users of the facilities by establishing special joint facility credit accounts, it follows that the joint users must charge such costs as they become liable for, to special joint facility debit accounts, which are likewise established as primary accounts in operating expenses. If therefore the credits made in the first instance by the controlling carrier and the debits made by the joint users have been correctly entered, the joint facility debit and credit accounts of all the carriers taken as a whole will balance.

Before these accounts were prescribed by the Interstate Commerce Commission there was no uniformity of treatment, one carrier crediting expenses with its charges against others, another carrier crediting revenue. Another plan used provided that the appropriate primary accounts be charged and credited by the controlling carrier, and that the joint user charge its share to the appropriate primary operating expense account.

CHAPTER XXX

CLASSIFICATION OF ACCOUNTS

The Interstate Commerce Commission has prescribed a system of accounting for railroads engaged in interstate commerce, and has, through its classification of accounts laid the basis for uniform railroad accounting. In order that the work of a railroad's Bookkeeping Department may be understood, the classification of accounts must be considered. It will be seen that the arrangement consists of four groups, revenue, expenditures, assets, and liabilities. Before any accounting records can be made, the numerous transactions involved must be analysed and placed in their proper groups.

Subdivision of Railway Operating Revenues

The Interstate Commerce Commission has established four general accounts under which "Railway Operating Revenues" shall be divided. They are:

GENERAL ACCOUNTS

I. Transportation—Rail line
II. Transportation—Water line
III. Incidental
IV. Joint Facility

PRIMARY ACCOUNTS

I. Transportation—Rail Line

101. Freight
102. Passenger
103. Excess baggage

104. Sleeping car
105. Parlor and chair car
106. Mail
107. Express
108. Other passenger train
109. Milk
110. Switching
113. Water transfers—Freight
114. Water transfers—Passenger
115. Water transfers—Vehicles and live stock
116. Water transfers—Other

II. Transportation—Water Line:

121. Freight
122. Passenger
123. Excess baggage
124. Other passenger service
125. Mail
126. Express
127. Special service
128. Other

III. Incidental:

131. Dining and buffet
132. Hotel and restaurant
133. Station, train, and boat privileges
134. Parcel room
135. Storage—Freight
136. Storage—Baggage
137. Demurrage
138. Telegraph and telephone
139. Grain elevator
140. Stockyard
141. Power
142. Rents of buildings and other property
143. Miscellaneous

IV. Joint Facility

151. Joint facility—Cr.
152. Joint facility—Dr.

Subdivision of General Operating Expense Accounts

The operating expenses constitute the major portion of a road's disbursements. These expenses are classified by the commission into eight general accounts:

I. Maintenance of Way and Structures
II. Maintenance of Equipment
III. Traffic
IV. Transportation—Rail line
V. Transportation—Water line
VI. Miscellaneous operations
VII. General
VIII. Transportation for Investment—Cr.

The purpose of the above classification is not so much to insure that each expense shall be put in its proper account as it is to avoid the evils of overcapitalization, which result from charging to the capital account expenses which are not capital expenditures.

Each of the general accounts is divided into a number of primary accounts.

PRIMARY ACCOUNTS

I. Maintenance of Way and Structures:

201. Superintendence
202. Roadway maintenance
203. Roadway—Depreciation
204. Underground power tubes
205. Underground power tubes—Depreciation
206. Tunnels and subways
207. Tunnels and subways—Depreciation
208. Bridges, trestles, and culverts
209. Bridges, trestles, and culverts—Depreciation

210. Elevated structures
211. Elevated structures—Depreciation
212. Ties
213. Ties—Depreciation
214. Rails
215. Rails—Depreciation
216. Other track material
217. Other track material—Depreciation
218. Ballast
219. Ballast—Depreciation
220. Track laying and surfacing
221. Fences, snow sheds, and signs
222. Fences, snow sheds, and signs—Depreciation
227. Station and office buildings
228. Station and office buildings—Depreciation
229. Roadway buildings
230. Roadway buildings—Depreciation
231. Water stations
232. Water stations—Depreciation
233. Fuel stations
234. Fuel stations—Depreciation
235. Shops and enginehouses
236. Shops and enginehouses—Depreciation
237. Grain elevators
238. Grain elevators—Depreciation
239. Storage warehouses
240. Storage warehouses—Depreciation
241. Wharves and docks
242. Wharves and docks—Depreciation
243. Coal and ore wharves
244. Coal and ore wharves—Depreciation
245. Gas-producing plants
246. Gas-producing plants—Depreciation
247. Telegraph and telephone lines
248. Telegraph and telephone lines—Depreciation
249. Signals and interlockers
250. Signals and interlockers—Depreciation

253. Power plants
254. Power plants—Depreciation
257. Power transmission systems
258. Power transmissions systems—Depreciation
265. Miscellaneous structures
266. Miscellaneous structures—Depreciation
269. Roadway machines
270. Roadway machines—Depreciation
271. Small tools and supplies
272. Removing snow, ice, and sand.
273. Public improvements—Maintenance
274. Injuries to persons
275. Insurance
276. Stationery and printing
277. Other expenses
278. Maintaining joint tracks, yards, and other facilities—Dr.
279. Maintaining joint tracks, yards, and other facilities—Cr.
280. Equalization—Way and Structures
281. Right of way—Expenses

II. Maintenance of Equipment:

301. Superintendence
302. Shop machinery
303. Shop machinery—Depreciation
304. Power plant machinery
305. Power plant machinery—Depreciation
308. Steam locomotives—Repairs
311. Other locomotives—Repairs
314. Freight-train cars—Repairs
317. Passenger-train cars—Repairs
323. Floating equipment—Repairs
326. Work equipment—Repairs
328. Miscellaneous equipment—Repairs
329. Equipment—Retirements
330. Extraordinary retirements—Equipment

331. Equipment—Depreciation
332. Injuries to persons
333. Insurance
334. Stationery and printing
335. Other expenses
336. Maintaining joint equipment—Dr.
337. Maintaining joint equipment—Cr.
338. Equalization—Equipment

III. **Traffic:**

351. Superintendence
352. Outside agencies
353. Advertising
354. Traffic associations
355. Fast freight lines
356. Industrial and immigration bureaus
357. Insurance
358. Stationery and printing
359. Other expenses.

IV. **Transportation—Rail Line:**

371. Superintendence
372. Dispatching trains
373. Station employees
374. Weighing, inspection, and demurrage bureaus
375. Coal and ore wharves
376. Station supplies and expenses
377. Yardmasters and yard clerks
378. Yard conductors and brakemen
379. Yard switch and signal tenders
380. Yard enginemen
381. Yard motormen
382. Yard switching fuel
383. Yard switching power produced
384. Yard switching power purchased
385. Water for yard locomotives
386. Lubricants for yard locomotives
387. Other supplies for yard locomotives

388. Enginehouse expenses—Yard
389. Yard supplies and expenses
390. Operating joint yards and terminals—Dr.
391. Operating joint yards and terminals—Cr.
392. Train enginemen
393. Train motormen
394. Train fuel
395. Train power produced
396. Train power purchased
397. Water for train locomotives
398. Lubricants for train locomotives
399. Other supplies for train locomotives
400. Enginehouse expenses—Train
401. Trainmen
402. Train supplies and expenses
403. Operating sleeping cars
404. Signal and interlocker operation
405. Crossing protection
406. Drawbridge operation
407. Telegraph and telephone operation
408. Operating floating equipment
409. Express service
410. Stationery and printing
411. Other expenses
412. Operating joint tracks and facilities—Dr.
413. Operating joint tracks and facilities—Cr.
414. Insurance
415. Clearing wrecks
416. Damage to property
417. Damage to livestock on right of way
418. Loss and damage—Freight
419. Loss and damage—Baggage
420. Injuries to persons

V. **Transportation—Water Line:**

431. Operation of vessels
432. Operation of terminals
433. Incidental

VI. Miscellaneous Operations:

441. Dining and buffet service
442. Hotels and restaurants
443. Grain elevators
444. Stockyards
445. Producing power sold
446. Other miscellaneous operations

VII. General:

451. Salaries and expenses of general officers
452. Salaries and expenses of clerks and attendants
453. General office supplies and expenses
454. Law expenses
455. Insurance
456. Relief department expenses
457. Pensions
458. Stationery and printing
459. Valuation expenses
460. Other expenses
461. General joint facilities—Dr.
462. General joint facilities—Cr.

VIII. Transportation for Investment—Cr.:

This account shall include fair allowances representing the expense to the carrier of transporting, on transportation trains, men engaged in and material for construction. Amounts credited to this account shall be concurrently charged to the appropriate property investment accounts.

CAPITAL ACCOUNT

The Commission has established three general capital accounts:

1. Road
2. Equipment
3. General Expenditures

Each of these general accounts is composed of a number of primary accounts, as follows:

I. Road:

1. Engineering
2. Land for transportation purposes

2½. Other right-of-way expenditures

3. Grading
4. Underground power tubes
5. Tunnels and subways
6. Bridges, trestles, and culverts
7. Elevated structures
8. Ties
9. Rails
10. Other track material
11. Ballast
12. Track laying and surfacing
13. Fences, snowsheds, and signs
16. Station and office buildings
17. Roadway buildings
18. Water stations
19. Fuel stations
20. Shops and enginehouses
21. Grain elevators
22. Storage warehouses
23. Wharves and docks
24. Coal and ore wharves
25. Gas-producing plants
26. Telegraph and telephone lines
27. Signals and interlockers
29. Power plants
31. Power transmission systems
35. Miscellaneous structures
37. Roadway machines
38. Roadway small tools
39. Public improvements—Construction
40. Revenues and operating expenses during construction
41. Cost of road purchased
42. Reconstruction of road purchased

43. Other expenditures—Road
44. Shop machinery
45. Power plant machinery
47. Unapplied construction material and supplies.

II. Equipment:

51. Steam locomotives
52. Other locomotives
53. Freight-train cars
54. Passenger-train cars
56. Floating equipment
57. Work equipment
58. Miscellaneous equipment

III. General Expenditures:

71. Organization expenses
72. General officers and clerks
73. Law
74. Stationery and printing
75. Taxes
76. Interest during construction
77. Other expenditures—General

Detailed instructions pertaining to the charges and credits to be made in the above accounts can be obtained by referring to the pamphlets and orders on the classification of operating revenues and operating expenses and the classification of investment in road and equipment issued by the Interstate Commerce Commission.

CHAPTER XXXI

BOOKKEEPING

General Books

With respect to general railroad bookkeeping, it is desirable to treat all transactions in a comprehensive way and yet without the detail appearing in the general books. The success of railroad accountants in minimizing general ledger detail is becoming generally recognized, and similar methods are being adopted by other corporation accountants.

The books generally employed are:

1. Cash Book.
2. General Ledger.
3. Bill Register.
4. Individuals' and Companies' Ledger.
5. Vouchers Payable Register.
6. Journal.

Cash Book

The Cash Book, built up from daily cash sheets and jointly used by the treasurer and the comptroller, is ruled to meet specific conditions. The debit side has the usual spaces for dates, and names, and columns to classify the receipts as to their nature. It would be impracticable to keep General Ledger accounts for all persons from whom a railroad company receives money, or to whom it makes payments. The Cash Book (Form LXXXV), therefore, need be divided into only a few columns on the debit and credit sides. The treasurer is governed in using these columns by the nature of the receipt or disbursement.

SUMMARY OF CASH RECEIPTS

Dr. Month of 19

Date	Agents' and Conductors' Balances	Traffic and Car Service Balances	Individuals and Companies—Railroads	Rents Receivable	Individuals and Companies	Miscellaneous			Total
1									
2									
3									
29									
30									
31									

SUMMARY OF CASH DISBURSEMENTS

Month of 19 *Cr.*

Audited Vouchers Payable	Traffic and Car Service Balances	Individuals and Companies—Railroads	Individuals and Companies	Pay Checks	Miscellaneous			Total	Date
									1
									2
									3
									29
									30
									31

FORM LXXXV

CASH BOOK

General Ledger

The totals of the Cash Book are transferred monthly to the General Ledger; the aggregate amount received from individuals and companies is credited to the account entitled Individuals and Companies, the aggregate amount received from agents is credited to the account entitled Agents' and Conductors' Balances, and so on—totals only being posted in the General Ledger. It should be understood that the total amount of cash received during a month is debited to the cash account in the General Ledger and credited in total as above indicated to the several accounts named. The same method is followed in dealing with the credit side: the total amount of cash disbursed is credited to the General Ledger account Cash, and the total of the audited voucher column in the Cash Book is charged to the General Ledger account Audited Vouchers Payable; any other payments entered in the miscellaneous columns of the Cash Book are charged to the proper General Ledger accounts. Thus the Cash Book entries may be posted in the General Ledger in totals direct from the Cash Book, or they may be posted through the medium of the Journal.

Bill Register

The Bill Register (Form LXXXVI) takes care of all detail with respect to bills rendered by the railroad. It is a book in which are recorded all bills rendered, and shows name of debtor, date and amount of bill, etc. The General Ledger account Individuals and Companies is debited each month with the total amount of bills rendered.

Individuals' and Companies' Ledger

This is a sub-ledger, corresponding to the accounts receivable ledger in commercial bookkeeping, in which an account is kept with each debtor; the amount of each bill is charged to each debtor and the amount of each payment is credited.

Sheet No. . . . .

. . . .

Name of Road

. . . .(Division or Dept.)

List of Bill Debits and Credits to INDIVIDUALS AND COMPANIES Submitted to

Comptroller as of. . . . . .19. . . . for the month of. . . . . .19. .

Department Bill Number	Company or Individual	Accounting Department Bill Number	Debit	Credit	Remarks
	Total				

. . . .

(Title)

Form LXXXVI
BILL REGISTER

It will be seen that the controlling account of this ledger in the General Ledger is Individuals and Companies. It has been noted that the general ledger account Individuals and Companies is charged monthly with the total of all bills rendered by the railroad; this account is credited with the total cash received from such debtors monthly. The Individuals' and Companies' Ledger carries the account of each debtor, both charges and payments; hence the sum of the charges to the accounts in the Individuals' and Companies' Ledger is the total of the amounts posted from the Bill Register to the debit side of the General Ledger account Individuals and Companies, and the sums of the amounts credited in the Individuals' and Companies' Ledger is the amount posted from the Cash Book to the credit of the General Ledger account Individuals and Companies. Therefore, a trial balance of the Individuals' and Companies' Ledger at the close of each month must equal the balance of the General Ledger account Individuals and Companies. The desirable feature of this system is that it permits of a statement of General Ledger accounts without the delay inevitable when all details are posted to the General Ledger.

Vouchers Payable Register

Audited Vouchers Payable is the title of the General Ledger account showing what the railroad owes for bills audited and approved; the total amount is shown by the Vouchers Payable Register (Form LXXXVII), a book designed to show name of creditor, or payee, and date and amount of bill. The total of all bills entered in the register is credited each month to the General Ledger account Audited Vouchers Payable, and the total amount paid, as shown by the column headed Audited Vouchers Payable in the Cash Book, is charged to the same General Ledger account. The details appear in the Vouchers Payable Register, and no sub-ledger is used for accounts payable as the register shows the amounts unpaid. A summary of

these amounts must agree with the balance of the General Ledger account.

Journal

The system of accounting of a railroad company has been developed with a view to localizing detail in subsidiary ledgers and thereby reducing it to a minimum in the General Ledger. Through the use of the Journal, the totals entering

Folio No.______

VOUCHERS PAYABLE REGISTER Month of____________ 193___

No. of Voucher	No. of Bill	Name of Payee	Amount		To Comptroller	Date Paid
		Total				

Form LXXXVII
VOUCHERS PAYABLE REGISTER

into the subsidiary records are summarized and posted monthly to the General Ledger. In order to make clear the nature of the summary entries that are rendered to the comptroller's office at the end of each month, a number of typical journal entries, together with the explanations and the sources of the entries, are given:

MONTH OF ....

Maintenance of Way and Structures	$______	
Maintenance of Equipment	______	
Traffic	______	
Transportation Rail Line	______	
Transportation Water Line	______	
Miscellaneous Operations	______	
General Expenses	______	
Road and Equipment	______	
Individuals and Companies	______	
Clearing Account	______	
Payroll		$______

For distribution of payrolls as reported for month of..............19...

Maintenance of Way and Structures	$______	
Maintenance of Equipment	______	
Traffic	______	
Transportation Rail Line	______	
Transportation Water Line	______	
Miscellaneous Operations	______	
Road and Equipment	______	
Individuals and Companies	______	
Clearing account	______	
Materials and Supplies		$______

For value of material consumed during the month of ....19...

Maintenance of Way and Structures	$______	
Maintenance of Equipment	______	
Traffic	______	
Transportation Rail Line	______	
Transportation Water Line	______	
Miscellaneous Operations	______	
Road and Equipment	______	
Individuals and Companies	______	
Clearing Account	______	
Equipment Trust Obligations Matured	______	
Interest on Equipment Trust Obligations	______	
Rentals for Leased Roads	______	
Taxes	______	
Preliminary Surveys	______	
Reimbursement—Account of Sidings	______	
Audited Accounts and Wages Payable		$______

For amount of disbursements by vouchers as reported for the month of ....19....

Payrolls..	$______	
Pay Drafts..................................		$______
Pay Orders..................................		______
Individuals and Companies......................		______

For amount of pay drafts and orders issued during the month of ....19....

Signed:

Auditor of Disbursements.

Agents and Conductors..............................	$______	
Individuals and Companies............................	______	
Traffic and Car Service Balances Receivable............	______	
Clearing Account......................................	______	
Other Miscellaneous Debits............................	______	
Freight Revenues..............................		$______
Individuals and Companies......................		______
Traffic and Car Service Balances Payable..........		______
Other Miscellaneous Credits.....................		______

For distribution of agents' and conductors' reports, interline accounts received from foreign roads and individuals and companies' bills for freight traffic for month of................19....

Signed:

Auditor of Freight Traffic.

Agents and Conductors..............................	$______	
Individuals and Companies............................	______	
Traffic and Car Service Balances Receivable.............	______	
Other Miscellaneous Debits............................	______	
Passenger Revenues............................		$______
Miscellaneous Revenues........................		______
Individuals and Companies......................		______
Traffic and Car Service Balances Payable..........		______
Clearing Account...............................		______
Other Miscellaneous Credits.....................		______

Distribution of agents' and conductors' reports, interline accounts received from foreign roads, and individuals and companies' bills covering passenger, baggage, mail, express, etc., for month of.....................19......

Signed:

Auditor of Passenger Traffic.

Taxes.. $______
Taxes Accrued.................................... $______

For estimated amount of taxes accrued such as capital stock, real estate, federal income, franchise, etc., for month of ....19.....

Interest on Funded Debt.............................. $______
Interest Accrued on Funded Debt................ $______

For amount of interest accrued on funded debt of the company for month of.................19...

Sinking Fund Appropriations............................ $______
Sinking Fund Appropriations Accrued............. $______

For accrual for the month of..................for sinking fund amount payable in month of................19....

Interest on Unfunded Debt............................. $______
Interest Payable Accrued......................... $______

For amount of interest accrued on unfunded debt for month of ....19....

Interest Receivable Accrued........................... $______
Income from Unfunded Accounts................. $______

Interest accrued on accounts on which interest is received month of ....19....

Signed:

Comptroller.

Postings are also made to the general ledger accounts from the treasurer's daily cash sheets and from the summary cash book. Thus agents' and conductors' accounts receive credits from these sources for remittances made; vouchers payable would be debited for the total of cash disbursed in payment of vouchers payable, etc.

The clearing accounts shown in the journal entries above represent amounts which could not be charged to expenses or other accounts at the time, owing to lack of proper data. These amounts will be cleared in subsequent months.

Each auditor reports monthly to the comptroller the balances in the subsidiary accounts for which he is responsible. These accounts are checked by the comptroller's office against the general ledger accounts, and any differences are investigated and subsequently adjusted. Each

auditor must report the details supporting any clearing accounts which he carries.

Depreciation

One of the largest items appearing upon the balance sheet of a railroad company is Investment in Road and Equipment. The charges to this account usually run into millions of dollars. It is important, therefore, that proper provision be made for recording the depreciation of the assets represented by this account. The Interstate Commerce Commission has ruled that railroads shall carry accrued depreciation reserves against items which have been charged as equipment, and has made the setting up of depreciation reserves against road and structures optional; the Commission is now actively considering the advisability of making it mandatory. In the creation of these reserves it is not required that specific assets be set aside or that funds be accumulated to provide for replacements.

The calculation of depreciation charges by railroad officials is rather difficult. In the first place, it is important to list all items of road and equipment which may be owned by a railroad. The equipment owned is subject to varying rates of depreciation, and the same type of equipment on different divisions will be subject to different rates for depreciation because of peculiar weather and service conditions. In the third place the factor of obsolescence, of equipment in particular, must be taken into consideration.

In making provision for accrued depreciation on equipment, railroad officials, as a rule, classify the equipment in certain groups, and then determine upon a fixed percentage; the amount for each group is to be charged to expenses and credited to the accrued depreciation reserves. For instance, separate classifications on which depreciation charges would be based would include steam locomotives, other locomotives, freight-train cars, passenger-train cars, motor equipment of cars, floating equipment, work equipment, and miscellaneous equipment. In determining the fixed percentage to be

charged as depreciation, consideration must be given to repairs and renewals. A road which has been in existence for some time usually has repair and renewal charges which are somewhat uniform from year to year. Accordingly, depreciation charges are not so high as one would be led to believe. If, at the time equipment is to be retired, a sufficient amount has not been accumulated in the accrued depreciation account, depreciation charges have been insufficient and it will be necessary for the railroad to charge the additional accrued depreciation to retirements. In this case the operating expenses of the year in question are charged with a greater proportion of depreciation than would otherwise be necessary.

As previously stated, depreciation reserves against road and structures are optional. It is maintained by many that, after a certain period has been reached in the life of a railroad, the repair and renewal expenditures will keep the roadway and structures in a suitable condition. Although this generalization might not apply to any specific structure or unit of roadway, it is probable that the efficiency of the road as a whole will be maintained by observing it. In some instances, however, we find railroads charging off depreciation on specific units of roadway, such as bridges, and specific units of structures, such as office buildings and stations.

Cost Accounting

An outstanding subject of interest in connection with railway accounting is that of operating costs. Cost accounting in commercial life has developed so greatly in recent years as to warrant the statement that the cost of production is obtainable for any manufactured product. Railroad authorities are still unable to allocate transportation costs accurately to any particular class of service. The total costs of labor and material, two important items of cost accounting, are known, but there are no accounts in transportation accounting corresponding to what are known commercially

as indirect expenses. Certain items of expense, of course, may be accurately allocated to the service for which they are used, but Maintenance of Way and Structures, General Expenses, and other items may be allocated only approximately. An estimate based upon train miles, locomotive miles, or revenue, is not exact, and therefore not absolutely dependable. The accurate allocation of costs to freight, passenger, and other transportation service cannot be made. However, the methods mentioned represent a real endeavor on the part of the railroad authorities to approach a scientific plan. In conclusion, it might be said that with the present-day demand for information as to the costs of operating a railroad, the accounting department has come to occupy a position of great importance in the organization.

Operating and Financial Statements

Every interstate railroad must forward to the Interstate Commerce Commission at the end of each fiscal year a report of its financial condition and operating results. This report includes the income statement, the profit and loss account, and the balance sheet. The accounts in these statements are set forth in the Interstate Commerce Commission Classification shown herewith:

Form of Income Statement

Explanatory Note.—The classified form of income statement is designed to show the financial changes resulting from transportation operations and other business of the accounting company during any specified period.

I. Operating Income:

A: Railway Operating Income

501. *Railway operating revenues..................
531. *Railway operating expenses..................
*Net revenue † from railway operations......
532. *Railway tax accruals.........................
*Railway operating income †...............

B. Rent Income

503. Hire of freight cars—Credit balance...........
504. Rent from locomotives........................
505. Rent from passenger-train cars...............

* Includes operation of water lines, if any.

† Deficit, if in red.

506. Rent from floating equipment................
507. Rent from work equipment..................
508. Joint facility rent income....................
Total rent income....................

C. Rents Payable

536. Hire of freight cars—Debit balance...........
537. Rent for locomotives.........................
538. Rent for passenger-train cars.................
539. Rent for floating equipment..................
540. Rent for work equipment....................
541. Joint facility rents..........................
Total rents payable..................
Net rents †..........................
Net railway operating income †........

II. Other Income:

502. Revenues from miscellaneous operations.......
509. Income from lease of road and equipment......
510. Miscellaneous rent income..................
511. Miscellaneous nonoperating physical property..
512. Separately operated properties—Profit.........
513. Dividend income.............................
514. Income from funded securities................
515. Income from unfunded securities and accounts..
516. Income from sinking and other reserve funds...
517. Release of premiums on funded debt..........
518. Contributions from other companies...........
519. Miscellaneous income.......................
Total other income..................
Total income †......................

III. Miscellaneous Deductions from Income:

534. Expenses of miscellaneous operations..........
535. Taxes on miscellaneous operating property.....
543. Miscellaneous rents.........................
544. Miscellaneous tax accruals..................
545. Separately operated properties—Loss..........
549. Maintenance of investment organization.......
550. Income transferred to other companies........
551. Miscellaneous income charges................
Total miscellaneous deductions.........
Income available for fixed charges †.....

IV. Fixed Charges:

542. Rent for leased roads and equipment..........
546. Interest on funded debt:
(*a*) Fixed interest........................

† Deficit, if in red.

547. Interest on unfunded debt....................
548. Amortization of discount on funded debt.......
Total fixed charges..................
Income after fixed charges†.............

V. Contingent Charges:

546. Interest on funded debt:
(b) Contingent interest....................
Net income†........................

VI. Disposition of Net Income:

552. Income applied to sinking and other reserve funds
553. Dividend appropriations of income............
554. Income appropriated for investment in physical property................................
555. Stock discount extinguished through income....
556. Miscellaneous appropriations of income........
Total appropriations of income.........
Income† balance transferred to Profit and Loss ....

PROFIT AND LOSS ACCOUNT

Primary Accounts

I. Credits:

*........balance at beginning of year........
Credit balance transferred from Income........
603. Credits from retired road and equipment.......
604. Delayed income credits.......................
606. Donations................................
607. Miscellaneous credits.......................

II. Debits:

Debit balance transferred from Income........
613. Surplus applied to sinking and other reserve funds
614. Dividend appropriations of surplus............
615. Surplus appropriated for investment in physical property...............................
616. Stock discount extinguished through surplus....
617. Debt discount extinguished through surplus....
618. Miscellaneous appropriations of surplus........
619. Debits from retired road and equipment.......
620. Delayed income debits......................
621. Miscellaneous debits.........................
*........balance carried to Balance Sheet.....
Total ....

* Insert "Debit" or "Credit", as may be appropriate.

† Deficit, if in red.

FORM OF GENERAL BALANCE SHEET STATEMENT

Explanatory Note.—The classified form of general balance sheet statement is designed to show the financial condition of the accounting company at any specified date.

ASSETS

Investments:

701. Investment in road and equipment:
    - Road..................................
    - Equipment..............................
    - General expenditures.......................
        - Total..............................
702. Improvements on leased railway property:
    - Road..................................
    - Equipment..............................
    - General expenditures.......................
        - Total..............................
703. Sinking funds..............................
704. Deposits in lieu of mortgaged property sold.....
705. Miscellaneous physical property...............
706. Investments in affiliated companies:
    - (*a*) Stocks..........................
    - (*b*) Bonds..........................
    - (*c*) Notes..........................
    - (*d*) Advances........................
707. Other investments:
    - (*a*) Stocks..........................
    - (*b*) Bonds..........................
    - (*c*) Notes..........................
    - (*d*) Advances........................
    - (*e*) Miscellaneous......................
        - Total investments..................

Current Assets:

708. Cash.......................................
709. Demand loans and deposits..................
710. Time drafts and deposits......................
711. Special deposits............................
712. Loans and bills receivable...................
713. Traffic and car-service balances receivable.......
714. Net balance receivable from agents and conductors
715. Miscellaneous accounts receivable.............
716. Material and supplies........................
717. Interest and dividends receivable..............
718. Rents receivable............................
719. Other current assets.........................
    - Total current assets..................

Deferred Assets:

720. Working fund advances.......................
721. Insurance and other funds....................

722. Other deferred assets........................
Total deferred assets.................

Unadjusted Debits:
723. Rents and insurance premiums paid in advance..
724. Discount on capital stock.....................
725. Discount on funded debt......................
726. Property abandoned chargeable to operating expenses...................................
726½. Equipment retired............................
727. Other unadjusted debits.......................
728. Securities issued or assumed—Unpledged.......
729. Securities issued or assumed—Pledged..........
Total unadjusted debits...............
Grand Total......................

LIABILITIES

Stock:
751. Capital stock.................................
752. Stock liability for conversion.................
753. Premium on capital stock.....................
Total stock.........................

Governmental Grants:
754. Grants in aid of construction.................

Long-term Debt:
755. Funded debt unmatured......................
756. Receiver's certificates.........................
757. Non-negotiable debt to affiliated companies:
(a) Notes..............................
(b) Open accounts.........................
Total long-term debt.................

Current Liabilities:
758. Loans and bills payable.......................
759. Traffic and car-service balances payable.........
760. Audited accounts and wages payable...........
761 Miscellaneous accounts payable...............
762. Interest matured unpaid......................
763. Dividends matured unpaid....................
764. Funded debt matured unpaid.................
765. Unmatured dividends declared................
766. Unmatured interest accrued..................
767. Unmatured rents accrued.....................
768. Other current liabilities.......................
Total current liabilities...............

Deferred Liabilities:
769. Liability for provident funds.................
770. Other deferred liabilities......................
Total deferred liabilities...............

Unadjusted Credits:

771. Tax liability....................................
772. Premium on funded debt.........................
773. Insurance and casualty reserves................
774. Maintenance reserves...........................
775. Accrued depreciation—Road......................
776. Accrued depreciation—Equipment.................
777. Accrued depreciation—Miscellaneous physical property....................................
778. Other unadjusted credits.......................

Total unadjusted credits...............

Corporate Surplus:

779. Additions to property through income and surplus
780. Funded debt retired through income and surplus..
781. Sinking fund reserves..........................
782. Miscellaneous fund reserves....................
783. Appropriated surplus not specifically invested...

Total appropriated surplus.............

784. Profit and loss................................

Total corporate surplus................

Grand Total...................

QUESTIONS AND PROBLEMS

(a) Questions

1. Explain the accounting system as developed by railroads with regard to the general books employed, the preparation of journal entries, and how the principle of control is carried out.

2. Indicate how the following items should be treated in the preparation of the operating and financial statements of a railroad:

Railway tax accruals.
Maintenance of way and structures.
Transportation for Investment—Cr.
Dividend income.
Passenger revenue.
Rent paid for locomotives.
Interest on funded debt.

3. Give in detail the steps taken in the auditing of passenger revenue of a steam railroad.

4. (*a*) A railroad, in recording the amount of freight revenue received during a month, makes the following entry:

Agents
or
Agents and Conductors
Freight Revenue

Outline how this entry is prepared, including any auditing features involved.

(*b*) The auditor of freight traffic may also send the following entry to the comptroller:

Freight Revenue
Traffic and Car Service Balances Payable
or
Foreign Roads

Explain the preparation of the information contained in this entry.

5. Explain the term "joint facility." Describe the method of accounting for this type of transaction.

6. From the following accounts draw up a balance sheet of a railroad company in approved form:

Investment in road equipment.
Cash.
Common stock.
Traffic and car service balances payable.
Working fund advances.
Sinking funds.
Audited accounts and wages payable.
Loans and bills receivable.
Net balances receivable from agents and conductors.
Materials and supplies.
Tax liability.
Interest matured unpaid.
Other unadjusted debits.
Unmatured dividends declared.
Preferred stock.
Accrued depreciation—Equipment.
Additions to property through income and surplus.
Interest and dividends receivable.
Miscellaneous physical property.
Other investments.
Funded debt unmatured.
Profit and loss account.

7. Explain the following railroad accounting terms:

(*a*) Waybill.
(*b*) Abstract of freight revenue.
(*c*) Division of revenue sheet.
(*d*) Profit and loss account.
(*e*) Income account.

8. Secure copies of the bulletins, "Classification of Investment in Road and Equipment," "Classification of Operating Revenues and Expenses," and "Classification of Income, Profit and Loss and General Balance Sheet Accounts." After referring to the explanations of the accounts given in the bulletins, answer the following:

(*a*) What accounts are debited when the following accounts are credited?

151. Joint facility—Cr.
279. Maintaining joint tracks—Cr.
VIII. Transportation for investment

(*b*) What accounts are credited when the following are debited?

532. Railway tax accruals.
280. Equalization—way and structures.
338. Equalization—equipment.
536. Hire of freight cars—debit balance.

9. Wherein do the following accounts differ and state how they arise:

762 } Interest matured unpaid.
766 } Unmatured interest accrued.

755 } Funded debt unmatured.
764 } Funded debt matured unpaid.

(Problems)

1. The following accounts appeared in the General Ledger of the C. & M. R. R. Co., on December 31, after adjustment but before closing. Prepare: (1) balance sheet, (2) profit and loss account, and (3) income statement:

Additions to property through income and surplus	$200,000
Audited accounts and wages payable	300,000
Accrued depreciation—road and equipment	1,400,000
Cash	1,000,000
Capital stock	14,000,000
Deferred liabilities	100,000
Dividend appropriations of surplus	800,000
Funded debt unmatured	13,800,000
Hire of equipment—Dr. bal	400,000
Interest on funded debt	700,000
Investment in road and equipment	30,000,000
Loss on retired road and equipment	200,000
Materials and supplies	200,000
Miscellaneous credits to profit and loss	100,000
Net balances receivable from agents and conductors	100,000
Non-operating income	300,000
Profit and loss credit balance, Jan. 1	2,000,000
Railway tax accruals	400,000
Railway operating revenues	4,000,000
Railway operating expenses	2,000,000
Tax liability	200,000
Traffic and car service balances receivable	200,000
Traffic and car service balances payable	100,000
Unadjusted debits	500,000

2. Prepare a work sheet containing columns for adjusted trial balance, income statement, profit and loss account, and balance sheet. Extend the balances of the following accounts to the proper columns.

	Adjusted Trial Balance	
	Dr.	Cr.
Accrued depreciation		$205,000
Additions to property through income and surplus		213,000
Audited accounts and wages payable		24,000
Cash	$25,000	
Common stock		660,000
Dividend appropriations of income	33,000	
Funded debt, unmatured		560,000
Hire of equipment	13,000	
Interest on funded debt	28,000	
Investment in road and equipment	980,000	
Interest and dividends receivable	6,000	
Materials and supplies	33,000	
Non-operating income		40,000
Net balances receivable from agents and conductors	9,000	
Other investments	890,000	
Other current assets	50,000	
Other unadjusted credits		75,000
Profit on road and equipment sold		5,000
Railway operating expenses	427,000	
Railway operating revenues		571,000
Railway tax accruals	36,000	
Rent for leased roads	50,000	
Surplus applied to sinking funds	4,000	
Sinking fund reserves		56,000
Sinking funds	56,000	
Tax liability		38,000
Traffic and car service balances receivable	7,000	
Traffic and car services balances payable		9,000
Unmatured interest accrued		6,000
Unmatured rents accrued		6,000
Unadjusted debits	15,000	
Working fund advances	1,000	
Profit and loss		195,000
	$2,663,000	$2,663,000

3. From the following trial balance of the East and West Railroad Company, as of December 31, prepare:

1. Balance sheet.
2. Operating statement with supporting schedules.
3. Profit and loss account.

TRIAL BALANCE, DECEMBER 31

Accrued depreciation—equipment		$1,816,224
Accrued depreciation—road		3,067,248
Additions to property through income and surplus		346,894
Audited accounts and wages payable		450,634
Amortization of discount on funded debt	$30,128	
Cash	140,624	
Common stock		8,425,000
Demand loans and deposits	1,319,046	
Deferred liabilities		6,920
Dividend appropriations of income	809,640	
Dividend income		41,240
Discount on funded debt	602,560	
Express revenue		43,096
Expenses of miscellaneous operations	13,674	
Freight revenue		6,092,186
Funded debt unmatured		20,682,200
Hire of freight cars—Cr. balance		31,298
Income from lease of road		48,500
Interest on funded debt	1,004,296	
Investment in road and equipment	38,426,409	
Investment in affiliated companies	3,264,277	
Joint facility rents	202,494	
Joint facility rent income		71,246
Loans and bills receivable	52,960	
Loans and bills payable		31,918
Maintenance of investment organization	11,264	
Maintenance of way and structures	710,094	
Maintenance of equipment	1,089,243	
Mail revenue		34,976
Materials and supplies	668,176	
Milk revenue		75,127
Miscellaneous income from non-operating physical property		71,033
Miscellaneous accounts payable		11,644
Miscellaneous accounts receivable	9,846	
Miscellaneous credits to profit and loss		6,198
Miscellaneous income charges	4,983	
Net balances receivable from agents and conductors	57,988	

(Continued on page 396)

(Continued from page 395)

Other current assets	3,981	
Other investments	64,271	
Other unadjusted credits		16,184
Passenger revenue		498,716
Profits on road and equipment sold		6,187
Profit and loss—Credit balance, Jan. 1		2,615,326
Preferred stock		6,516,000
Railway tax accruals	618,793	
Revenues from miscellaneous operations		17,854
Rent for leased roads	17,250	
Rents and insurance premiums paid in advance	16,200	
Separately operated properties—profit		16,194
Surplus appropriated for investment in physical property	12,294	
Tax liability		197,248
Traffic and car service balances receivable	101,298	
Traffic and car service balances payable		23,196
Time drafts and deposits	12,242	
Traffic expenses	51,200	
Transportation expenses	2,164,237	
Transportation for investment—Cr.		33,198
Uncollectible railway revenues	3,240	
Unmatured interest accrued		185,274
Unmatured rents accrued		4,186
Working fund advances	437	
	$51,483,145	$51,483,145

PART VIII

MUNICIPALITIES

CHAPTER XXXII

BUDGET OR FUNDING ACCOUNTS

Differences between Private Accounting and Municipal Accounting

In the previous sections of this book we have discussed the operations of several types of business and the application thereto of accounting principles. In this section a study will be made of public institutions and their accounting procedure. Certain differences are immediately apparent. First of all, businesses which are private in nature are operated for profit. It is the intention of the owners to invest funds in their business in order to earn an income. Public institutions, however, are not operated for profit but exist to render service. In the second place, the character of the ownership differs. The private establishment is owned by one individual or a limited number of individuals. The public institution is owned by the citizens of the community for which it exists. A third difference is to be found in the manner in which revenues and expenses are handled. In the private establishment emphasis is placed upon sales. The greater the volume of sales the greater in general is the profit. The expenses are limited, we may say, to the sales which are made, and if sales decrease in volume, expenses should likewise decrease. In a municipality, which we shall deal with as an example of a public institution, the first consideration is expense. When a municipality

has decided what its expenses will be for an ensuing period, it makes provision for raising the necessary revenue. If later, in the opinion of the legislative body, departmental expenses should be increased, or public work should be undertaken, the necessary funds must be raised to meet the increase in expenditures. Finally, we find that in the business owned privately, there is a decided absence of budgetary control. Although it is true that many business executives realize the importance of budgetary control, the budgets constructed by them are in many instances either discarded as non-workable or are forgotten in the press of other duties. In public accounting the budget prepared is far more effective, for budget accounts become in many instances an integral part of the accounting system. A budget carefully prepared and properly operated and controlled prevents to a great extent violations of public trust and the overspending, through carelessness, of the revenues received. Although this section is primarily concerned with the application of the budget to the accounts of a municipality, the principles involved can readily be applied to the accounting for hospitals, clubs, fraternities, and other institutions operated on a budget basis.

Definition of a Municipality

A municipality has been defined as a town, city, or other district having powers of local self-government. An association of individuals so organized is concerned with such problems as police and fire protection, education of its members, health, sanitation, recreation, etc.

Organization of a Municipality

The organization of a municipality is dependent to a very great extent on the size of the city or district, its population, the type of government under which it operates, and the services to be rendered by the government to the citizens. Many cities undertake to render services which in other cities are performed by private corporations. As

an example one might mention such services as transportation, or the furnishing of water or gas or electricity. It is proposed, therefore, to limit the discussion of municipal organization to the councilmanic type, and to ignore as far as possible any reference to procedure involved in accounting for services usually performed by private enterprise.

The municipal corporation may be divided into three parts, legislative, judicial, and executive. It is the function of the legislative branch, or councils, to make laws for the benefit of the citizens. The judicial department interprets the laws; the executive branch enforces the laws and carries on the administrative work of the city.

The executive branch may accordingly be divided into a number of subsidiary departments as follows:

- Department of Public Safety.
- Welfare Department.
- Department of Streets, Highways, and Engineering.
- Department of Health.
- Department of City Properties.
- Department of Street Cleaning.
- Department of Education.
- Department of Purchasing and Supplies.
- General Government.
- Department of Accounts:
  - Budget Division.
  - Tax Collector.
  - Comptroller.
  - Treasurer.
- Other Administrative Commissions:
  - Division of Weights and Measures.
  - Civil Service Commission.
  - City Planning Bureau.
  - Poor Boards.
  - Sinking Fund Commissions.

In some cities it will be found that some departments listed above are, under the law, separate taxing districts and

have power to levy and collect taxes and make disbursements. For instance, the Department of Education may take on the status of a taxing power, such as a school district in Pennsylvania.

The Department of Public Safety is subdivided into a number of subsidiary departments, such as fire, police, building inspection, and elevator inspection. The Department of Public Welfare is interested in charities, recreation, and parks. The Departments of Highways, City Properties and Street Cleaning, devote their energies to street conditions, surveys, sewers, paving, street cleaning, and the upkeep of the properties owned by the city. The director of the Health Department exercises supervision over general health and over city hospitals. The Department of Education is responsible for the organization and conduct of public schools. The Purchasing Department buys the necessary supplies for other departments. If there is no purchasing department, the purchases required may be made by each department. The term General Government is used to designate the activities of the mayor, the coroner, the city solicitor, the district attorney, and the legislative body. The Accounting Department collects the revenues of the city, audits the accounts of the various departments which have been authorized to expend funds, and pays bills upon proper audit. Until recently the accounting departments of municipalities concerned themselves primarily with the recording of cash transactions only. Emphasis was placed upon the cash balance at the beginning of the year and at the end of the year. A large cash balance on hand at the end of the year was looked on with a great deal of favor, and it was often felt that the city was poorly managed if the cash balance was small. Of late, however, emphasis in municipal accounting has been turning from the treasurer's statement to revenue and expense accounting.

Accounting Requirements

The administration of the departments of a city is under the supervision of salaried employees, either elected by the people or appointed. These employees are responsible for the collection of the city's revenues and the expenditure of its funds. But the power of these employees to spend city funds is conferred on them only by appropriations or authorizations. The status of these authorizations must be known at all times; the accounting system is depended upon to provide ways and means for obtaining this information. Municipal accounting, therefore, differs somewhat from commercial accounting, and the accounting system of a city must be sufficiently elastic to provide for the presentation of the following information:

(*a*) Statements of cash receipts and disbursements.
(*b*) Statements of revenues and expenses.
(*c*) Statements of assets and liabilities.
(*d*) Statements of departmental commitments which have been made.
(*e*) Statements showing the unexpended amounts of each department appropriation.

In furnishing the above information, a municipality must employ two types of accounting:

1. Financial accounting, which will enable it to prepare statements of assets and liabilities and statements of operation.
2. Budget or funding accounting, which will enable it to determine whether public officials have exceeded their authority in expending amounts which have been appropriated to their departments.

The funding accounts, sometimes called budget accounts, are those which arise because of the existence of the budget. The budget can be defined as a forecast or estimate of future departmental expenses. It should show what provision has

been made for payment of these expenses as they arise. Indeed, its main function is to give information for determining fiscal policies and plans.

The Municipal Budget

Before the opening of the fiscal year, each department head submits to the legislative body, or a committee appointed by it, a statement showing anticipated expenses of his department for the new year. This estimate, called a

BUDGET ESTIMATE

SALARIES

For Year............................

Department Number...............

Name	Official Title	Present Salary	Requested Salary	Increase or Decrease	Amount Approved	Remarks
	Totals					

Form LXXXVIII

BUDGET ESTIMATE—SALARIES

budget estimate, may show the salaries and wages which, it is estimated, will have to be paid, and the cost of the supplies to be consumed. It may also show the cost of new equipment desired and other costs of maintenance. Instead of submitting one budget the departmental executive may submit several, such as a Salary Budget (Form LXXXVIII), Equipment Budget, and Maintenance Budget.

Budgets submitted are carefully scrutinized by the legislative body or its budget committee, if one exists. In some municipalities the departmental budgets are carefully analyzed by a budget director before being forwarded to the legislative branch for approval. Budget increases should be scrutinized and justified before approval. In addition to the budget submitted, each department collecting revenues should prepare a statement of its anticipated revenues. Collections of revenues may be made by the various departments comprising the municipal corporation through the issuance of licenses and permits of various kinds. Fees may be collected for marriage licenses, rental of space in public buildings, permits for the erection of signs, and for the privilege of playing on municipal golf or tennis courts. Water rents often form an important source of revenue. The Police Department may collect fees for the impounding of automobiles illegally parked, and the courts may impose fines for the violation of various ordinances. Funds may be collected by the Department of Health for the issuance of birth or death certificates or the granting of disinterment permits. Estimates will also be made by the executives in charge of municipal-owned utilities as to the amounts to be received for the service rendered.

The approval of the budget, either as submitted or in a modified form, carries with it the obligation of providing the necessary revenues to meet the authorizations. The estimated departmental revenues and profits, if any, of the city-owned or -operated utilities, falls in most instances far short of the amount required. The city, in order to meet the deficiency, may authorize the expending of surplus revenues if any exist, and the levying of a tax upon real estate owned. The condensed financial report of the City of Buffalo for the fiscal year ended June 30, 1932, shows the sources from which revenues were derived to meet authorizations incurred. The distribution of the revenues is as follows:

	Amount	Per Cent of Total
Tax levy	$31,297,857.28	73.5
Division of Water	2,386,839.47	5.6
Board of Education	3,944,966.86	9.2
Department revenue	1,219,919.57	2.9
Miscellaneous revenue	716,065.79	1.7
Share special taxes (New York State)	3,023,820.68	7.1
	$42,589,469.65	100.0

The revenue reported by the Division of Water was derived principally from the sale of water based on meter or flat-rate charges. The Board of Education revenue came principally from state appropriations made for educational purposes and from sale of lunches in school cafeterias. The greater part of the expenses of conducting the school system was paid from funds appropriated by the city which were collected through the general tax levy. Department revenue consisted of funds received for licenses, court fees, operation of city hospitals, etc. The amount received from the state as the city's share of special taxes came primarily from bank, mortgage, franchise, and income taxes collected by the state. Interest on bank balances and penalties arising as a result of delinquent tax payments account for the bulk of the miscellaneous revenue.

To determine the amount to be raised by the general tax levy, the expected revenue from all other sources is deducted from the total appropriations. A comparison is made between this amount and the assessed valuation of all properties on which taxes will be levied. The ratio so ascertained determines the tax rate. If the amount to be raised by taxation divided by the assessed valuation exceeds the maximum rate which can be charged under the law, a revision of the budget or a revision of assessments must take place. The budget authorizations, offset by anticipated revenues calculated as above, result in what is known as a balanced budget. Subsequent collections may not be up to expectations, or appropriations authorized may have to be revised upward. In either case a deficit results, which will have to

be taken care of either by temporarily borrowing or ultimately through an increase in the taxes of future years. Collections in excess of those anticipated or failure to use the entire amount appropriated results in a surplus of revenue which becomes available for future needs.

In order that the citizens of the city may know whether authorizations extended to department heads have been exceeded, it is desirable that an accounting check be placed upon all expenditures. Budget accounts should be established to enable one to ascertain at any given moment how much each department still has available for spending, how much it has spent, and the sources for meeting future obligations. It is the purpose of the budget accounts to show two things: first, authorizations to incur liabilities; and second, the resources available to meet the authorizations. Budget accounts which are carried to show this information are known as budget debits and credits, or funding debits and funding credits. When the character of any budget debit changes or an adjustment takes place in any budget credit, it is usual to make journal entries to reflect these changes and to post the journal entries to the proper budget accounts, which are carried either in a general ledger or in subsidiary ledgers.

The budget debit accounts are as follows:

1. Estimated miscellaneous revenue.
2. Estimated tax revenue.
3. Available balances.
4. Unapplied cash balances.

The budget credit accounts are:

1. Appropriations or authorizations to incur liabilities.
2. Reserve for orders or contracts representing appropriations which have been encumbered.
3. Reserves for temporary loans.
4. Reserves for tax abatements.
5. Surplus of revenue.

Character of Budget or Funding Accounts

In order to understand the operation of the budget debit and budget credit accounts listed above, it is necessary that a clear idea be had as to the character and purpose of budget accounts. They should not be confused with the financial and operating accounts appearing on balance sheets and profit and loss statements. A budget debit account is not an asset; it is merely an expression to indicate the source of future assets. If a business man were to establish a goal of $1,000,000 in sales, he might conceivably create a budget debit called "Estimated Sales $1,000,000." A budget debit such as this should not be confused with actual accounts receivable arising through actual sales. Budget debit accounts are account titles used to designate "prospective assets." Nor can budget credit accounts be considered synonymous with liabilities. They are merely authorizations to incur liabilities, and not liabilities incurred. The purpose of keeping budget accounts is to enable the authorities to determine the amounts of the unexpended balances of authorized appropriations, the amounts of the encumbrances charged against appropriations, and the sources of the funds to be used to liquidate the liabilities arising through the encumbrance of the appropriations.

In order that the funding accounts and the nature of their content be made plain, the journal entries, shown below, giving rise to these accounts should be carefully analyzed. The budget accounts established are general ledger accounts, which may be supported by details appearing in subsidiary ledgers. Although many fire districts, road districts, school districts, etc., operate under a budget, many fail to keep complete records of budgetary changes. In far too many instances no budgetary entries are made, the authorities comparing the budget with the statement of receipts and disbursements from time to time. The entries given below assume that it is advisable to always make a clear-cut distinction between the financial and budget accounts.

CITY OF X

Resolved: That the local budget for the City of X for the fiscal year ending December 31, 19—, be approved as submitted and the same is hereby approved.

Appropriations

	Year Ending Dec. 31, 19—	
General Government	$160,100	
Department of Public Safety	700,300	
Department of Health	25,200	
Department of Streets and Improvements	140,165	
Department of City Properties	150,600	
Interest on Bonded Debt	25,300	
Sinking Fund Requirements	52,800	
Reserve for Tax Abatements	22,000	
Contingent Reserve	15,000	
Total Appropriations		$1,291,465

Anticipated Revenues to be applied to the payment of budget authorizations:

Surplus Revenue Appropriated	$50,000	
Miscellaneous Revenues:		
Licenses	15,000	
Police Court Fines	7,500	
Building Inspector's Fees	1,500	
Health Fees	5,000	
Street Permits	1,700	
Delinquent Tax Interest	500	
Interest on Bank Deposits	6,000	
City Hospitals	23,200	
Sale of Old Material	3,500	
Rents	5,750	
Franchises	10,000	
Gross Receipts Tax	142,000	
Total Anticipated Revenues	271,650	
To be Raised by Taxation	1,019,815	
		$1,291,465

Form LXXXIX

APPROVED BUDGET

When the budget (Form LXXXIX) showing the departmental appropriations and the expected revenues available for meeting these departmental appropriations is finally approved by the legislative branch of the city and signed by the mayor and the city clerk, a journal entry will be made as follows:

Surplus Revenues..................
Estimated Miscellaneous Revenues...
Estimated Tax Revenues............
Appropriations or Authorizations to Incur Liabilities.

Department of Public Safety
Subdivison - Fire Protection
Account - Repairs to Fire Apparatus
Appropriation - $ 10,000

Date	Orders Issued			Total Encumbrance		Invoice Received		Warrant Issued		Appropriation Balance Available
	Requisitions	Purchase Orders	Contracts			Date	Name	Date	Amount	
Total										

FORM XC

APPROPRIATION LEDGER ACCOUNT

Supporting these particular accounts, which are carried in the General Ledger, are the detailed accounts of appropriations or authorizations in a subsidiary Appropriation Ledger (Form XC); moreover, each departmental appropriation may in turn be analyzed. The details of the estimated miscellaneous revenues are also carried in a subsidiary ledger. The above entry cannot be considered as showing assets or liabilities of the city, for it simply represents in journal entry form estimates of probable revenue and authorization for its expenditure.

After the property taxes have been ascertained, tax bills are prepared in duplicate and thus certain of the prospective resources for meeting the appropriations become more definite in character. The estimated tax revenue is approaching an actuality. This revenue has not at this time been totally realized, but it is on its way to realization. To record this progress the following journal entry will be made:

Available Balance..................
    Estimated Tax Revenues........

Available balance is an account which denotes the amount of property taxes which should be collected. It is very seldom that the estimated tax revenue corresponds with the actual tax revenue, and a balance denoting the extent of the error which has been made in estimating the tax revenue usually appears in the estimated tax revenue account. This balance is closed into a budget surplus or budget deficit account, generally called surplus revenue or deficit.

As each department collects its miscellaneous revenues the cash is turned over to the treasurer of the city, and an entry is made in the group of funding accounts as follows:

Unapplied Cash Balances......................
    Estimated Miscellaneous Revenues.........

The unapplied cash balances show the amount of cash which is available for meeting appropriation commitments.

As taxes are paid into the office of the receiver of taxes, the funds are turned over to the treasurer, who makes the proper entries. Within the group of budget accounts we have the following entry:

Unapplied Cash Balances......................
    Available Balance.......................

The difference between the debits and credits appearing in the available balance account shows the amount of property taxes still to be collected, and is regarded as an available resource.

While the process of collecting estimated budget revenues is taking place, the city departments are at the same time making expenditures. If each department is to be run efficiently, payrolls must be met promptly, materials and supplies must be ordered when required, and contracts must be let for necessary improvements. Upon the issuance of purchase orders by any department, or upon the letting of contracts, a record is made in the Register of Purchase

DEPARTMENT · PUBLIC SAFETY

Date	Purchase or Contract Order No.	Amounts		Distribution						
		Purchase Order	Contracts	Director	Fire	Police	Municipal Court	Building Inspection	Elevator Inspection	etc.
Total										

Form XCI

PURCHASE ORDER AND CONTRACT REGISTER

Orders and Contracts (Form XCI). In the recording of purchase orders and contracts in this register, each appropriation account is charged for the amount of the encumbrance. In order that the appropriation control account may properly show the amounts of these encumbrances at any time, a journal entry is made in the budget or funding accounts:

Appropriations ....
    Reserve for Purchase Orders Issued ....
    Reserve for Contracts Authorized ....

This entry in effect shows transfers from appropriations

which are unencumbered to specific accounts which represent encumbrances. It should be realized that the issuance of purchase orders or the letting of contracts does not result in the creating of immediate liabilities. The liabilities which are created are only contingent in character. When materials for which purchase orders have been issued are delivered, or when contracts are completed, invoices (Form XCII) will be received and entries will be made in the proper financial records of the city. The receipt and auditing of invoices, in the group of budget accounts, reduces the amount of the Unapplied Cash Balance available for meeting future appropriation encumbrances. This involves the following entry:

Reserve for Purchase Orders Issued.............
Reserve for Contracts Authorized..............
    Unapplied Cash Balances.................

The effect of the entry is to show that bills representing certain encumbrances against appropriations have been approved. After the invoices are approved, warrants will be issued by the comptroller. Warrants are orders drawn by the city comptroller upon the city treasurer, authorizing him to pay to the person named in the warrant a specified sum of money.

When the collection of the estimated miscellaneous revenues or the estimated tax revenues is unduly slow, the city, in order to keep its departmental activities functioning, may be forced to borrow funds. Since the funds so borrowed will be used for the payment of appropriation encumbrances, a liability has been created which will have to be met out of revenues collected in the future, and a budget entry is required:

Unapplied Cash Balances.....................
    Reserve for Temporary Loans.............

In some cases it is necessary for the city to reduce tax bills because property owners have complained regarding excessive assessments. If the amount of the taxes is low-

This Claim must be submitted to the Comptroller

DEPARTMENT OF PUBLIC HEALTH

....19..

MUNICIPAL HOSPITAL ACCOUNT

To...*Dr.*

Order No.	*Date*							

Terms..

If discount is allowed bills will be paid promptly. Otherwise payment will be made not later than the 15th of each month, providing bills are filed with the Comptroller on or before the 3rd of month.

FORM XCII—INVOICE (Face)

Claim No. ....

Warrant No. ....

DEPARTMENT OF PUBLIC HEALTH

MUNICIPAL HOSPITAL ACCOUNT

Amount, $.................

To.......................................

Salaries	....
Food Supplies	....
Drugs and Disinfectants	....
Tobacco	....
Feed, Hay and Straw	....
Shoes and Repairs	....
Dry Goods and Clothing	....
Fuel	....
Light and Power	....
Building Repairs	....
Telephones	....
Furniture and Fixtures	....
Printing and Stationery	....
Tools and Equipments	....
Lawns and Flowers	....
Auto Maintenance	....
Horse Shoeing	....
Harness and Repairs	....
Insurance	....
New Auto	....
Miscellaneous	....
....	....
....	....

STATE OF............ }
CITY OF............ } ss.

.... being duly sworn, on his oath saith, that the within bill is correct in all its particulars, the articles having been furnished or services rendered as stated therein.

....

Sworn and subscribed before me, this ....day of............ A. D. 19..

....
Notary Public.

FORM XCII (Back)

ered, the available balance for budget requirements is accordingly brought down. Likewise the appropriation account, Reserve for Tax Abatements, is affected. A budget entry therefore should be made.

Appropriations
  Available Balance........................

In the above case a reserve for tax abatements is provided for in the budget. (See Form LXXXIX.) As taxes are abated, Reserve for Tax Abatements and also Appropriations, the control account, will be charged, and Available Balance will be given credit.

When the above journal entries are posted, statements of the condition of the budgetary accounts can be presented. The Funding Balance Sheet would show the following debit and credit accounts:

FUNDING BALANCE SHEET

Debit	Credit
Estimated Miscellaneous Revenues..............	Appropriations...........
Estimated Tax Revenues..	Reserve for Purchase Orders Issued................
Available Balances.......	Reserve for Contracts Authorized............
Unapplied Cash Balances..	Reserve for Temporary Loans

Again it should be stated—and this point cannot be emphasized too frequently—that budget or funding accounts are not to be considered as financial or operating accounts. Their function is restrictive, since they operate as a control over authorizations which result in liabilities.

CHAPTER XXXIII

THE DIVISION OF THE ACCOUNTS OF A MUNICIPALITY

Reference was made in the preceding chapter to the two types of accounting employed by a municipality. One, called financial accounting, is usually designated by the term proprietary; the other is known as budget or funding accounting.

The term proprietary is used to refer to the assets, liabilities, expenses, or revenues of a city. It will be found that the proprietary accounts are usually divided into several groups, the first of which is known as the general fund, or current fund, accounts. This name has been given to distinguish the assets which can be applied to any of the general purposes of the city from assets which cannot be so applied. Proprietary accounts dealing with items the use of which is restricted belong to a second group, known as the specific fund, or special fund, group. There may be any number of specific fund divisions, the most usual being the capital fund, sinking fund, and trust fund. Each of these divisions may represent a group of accounts of its own. In the capital fund group of accounts appear the capital assets and liabilities of the city. Assets and liabilities in this group are separated from those in the general fund group for the reason that these assets, as a rule, are not acquired directly through taxation. In the sinking fund group are assets and liabilities pertaining to sinking fund operations. The trust fund group contains assets and liabilities which represent funds that must be applied to some particular purpose, or used in a manner designated by ordinance or by the wishes of those establishing the trust.

Profit and loss accounts are also proprietary accounts and support the operations of the general fund, capital fund, sinking fund, and the trust fund.

Since expenditures cannot be made from any fund without authorization, and since it is necessary to make certain that authorizations are not exceeded, there will also appear, upon the books of a municipality, budget or funding accounts for each group of proprietary accounts. For instance, there will be budget accounts supporting the operation of the general fund; budget accounts supporting the operation of the capital fund; budget accounts supporting the operation of the sinking fund; and budget accounts supporting the trust fund.

What are the main accounts kept in each proprietary and budget division of the municipal accounting system? This question can best be answered by presenting and discussing the more important accounts in each proprietary division and in each supporting budget or funding division.

The General Fund

The following proprietary accounts appear in the general group:

General Fund Accounts

Assets	Liabilities
Cash....................	Invoices or vouchers payable..................
Current property taxes receivable...............	Warrants payable........
Other receivables.........	Temporary loans.........
Delinquent taxes receivable.	Reserves................
Materials and Supplies.	Surplus.................
	Surplus cash over immediate cash requirements...............
	Surplus other assets over other liabilities including reserves..........

Expenses	Revenues
Expenses of administering each department.......	Revenues from taxes levies.
Maintenance and operation expenses of each department..................	Revenues from miscellaneous sources............
Other expenses such as interest on funded debt...	

Budget accounts operated in conjunction with the above general fund accounts:

Debits	Credits
Estimated miscellaneous revenues..............	Unencumbered appropriations..................
Estimated tax revenues...	Reserve for contracts.....
Available balance.........	Reserve for purchase orders
Unapplied net cash balance	Reserve for temporary loans..................
	Surplus revenue..........

In explanation of the accounts which appear in the list of general fund accounts given above, it might be stated that these accounts as listed represent those accounts which come into existence because of the general operations of the city. The amount of cash on hand equals the excess of cash collections over cash payments. It includes the cash balances in the accounts of the several depositaries, petty cash advances made to the various departments having need of this type of fund, and receipts collected by departments but not yet deposited to the credit of the city treasurer. The current taxes receivable represents the total of the taxes which have been assessed against property owners but which have not as yet been paid or abated. Other receivables may include amounts to be paid to the general fund for invoices rendered, such as for the rental of city property, or amounts due from the sale of old material. The delinquent taxes receivable include only taxes of prior periods which are still uncollected. This account may be called tax levies, or tax sale certificates, in those cases where the municipality places a lien upon the property when the tax becomes delinquent.

Materials and supplies is a controlling account supported by a stores ledger which carries the details of the supplies which have been purchased in anticipation of departmental requirements. Invoices or vouchers payable is the total of invoices received and approved and awaiting the issuance of warrants. Warrants payable are orders drawn by the comptroller or other authorized city official upon the treasurer for the payment of invoices which are due. Temporary loans represent the amount due by the city for money borrowed to tide it over an emergency, or for money borrowed in anticipation of tax receipts. Reserves shown in the proprietary list of accounts are primarily valuation reserves offsetting the various receivables shown as assets. Many balance sheets prepared by municipalities show a separation of surplus as indicated above. The surplus cash over immediate demands for cash represents the excess of cash over invoices and warrants payable which are outstanding. Surplus other assets over other liabilities, including reserves, represents the excess of the total assets other than cash over all other liabilities. The sum of the two surplus accounts will indicate the actual surplus balance existing in the general fund.

Expense accounts are kept for each department subdivided into salaries, repairs, materials used, wages, advertising, fuels, teaming and trucking, rentals, etc. The departmental budget allotments tend to determine the nature and number of accounts kept for each department. Revenue accounts appear for the various types of revenue accruing or collected by the city as a result of the activities of the various departments.

In the budget group of accounts operated in connection with the general fund, estimated revenues represent the difference between the anticipated revenues and the realized revenues. Available balance is the amount which should be later converted into cash. The balance appearing in this account should always agree with the balance of the amounts due to the city appearing in the tax accounts, less any

tax reserves which have been established. Unapplied net cash balance is the difference between the cash account and the invoices payable and the warrants payable, as shown by the general fund proprietary group. It should equal the amount of surplus cash over the immediate demands for cash. The unencumbered balance of appropriations agrees with the sum of the amounts credited in the appropriation ledger to the various departments of the city against which no commitments have been made. Reserve for contracts and reserve for purchase orders show the extent to which appropriation balances are still encumbered. The surplus revenue account is a closing account and in many respects is similar to a profit and loss account. It does in budget accounting what a profit and loss account does in financial accounting.

The Capital Fund Group

In the capital fund group of the proprietary accounts, the following assets and liabilities appear:

Debits	Credits
Capital cash.............	Invoices payable..........
Materials and supplies....	Warrants payable........
Permanent properties:	Bonded indebtedness outstanding...............
Land and buildings.....	Reserve for depreciation on permanent properties
Sewers, water mains, etc.	Surplus cash over immediate demands for cash....
Pavements, street and sidewalks............	Surplus of other assets over other liabilities and reserves.................
Reservoirs.............	
Bridges................	
Grade crossings........	
Piers and wharves......	
Furniture and fixtures...	
etc.	

Budget accounts related to the capital fund group of proprietary accounts are as follows:

Debits	Credits
Loans authorized and unissued.................	Unencumbered bond fund appropriations.........
Unapplied capital cash balances...............	Reserves for contracts.....
	Unappropriated balances..

The accounts which appear in the capital fund group are to a very great extent self-explanatory. The assets within this group are created in the main by the issuance of bonds. They are considerably more permanent in character than the assets which appear in the general group of accounts. This is true with one exception, cash. The amount of cash appearing in the cash account in this group represents, in a general way, the proceeds from bonds sold, which will be utilized in the purchase of additional properties or in the construction of new buildings, water-works, etc. Materials and supplies in the capital fund group includes material which will be used in the construction of new properties and equipment, or in repairing permanent properties. It differs from materials and supplies of the general fund, which deals with material consumed in the ordinary operations of the city. The budget accounts are similar in all respects to the budget accounts in the general group. Credits show both encumbered and unencumbered appropriations. Debits show the resources in the form of loans which have been authorized, but which to the present time have not been issued, and unapplied cash balances.

The Sinking Fund Group

In the sinking fund group of the proprietary accounts are the following financial and nominal accounts:

Debits	Credits
Sinking fund cash........	Interest on investments...
Investments in city's own bonds.................	Sinking fund reserves.....
Investment in other bond issues.................	
Accrued interest on investments.................	
Expenses of trustees of the sinking fund...........	

If budget accounts are employed in conjunction with the above assets and liabilities of the sinking fund group, they are as follows:

Debits	Credits
Sinking fund requirements:	Reserve to meet debt at maturity..............
Unapplied sinking fund cash balances..........	
Sinking fund investments..	

The only sources of income for the sinking fund, outside of interest on the bank balances and investments of the fund, arise in the general fund or the capital fund. A detailed explanation of the operation of the accounts in this group will be given under the chapter devoted to a discussion of the specific fund accounts.

The Trust Fund Group

The trust fund comprises the following assets and liabilities:

Assets	Liabilities
Municipal utilities........	Invoices payable..........
Cash.....................	Warrants payable........
Investments............	Reserves for each trust fund..................
Assessments receivable....	Surplus cash over immediate demands for cash....
Accrued interest..........	Surplus other assets over other liabilities.........
Special funds............	
Improvements in progress.	

Budget accounts, if kept for this group, show the following:

Debits	Credits
Unapplied trust fund cash balances..............	Improvement appropriations..................
Available balances........	Reserves for contracts....

The trust fund group of the proprietary and budget accounts is very similar to the capital fund and sinking fund groups. The assets and liabilities as a whole differ only in the uses to which they are put, but trust fund liabilities can be liquidated only by the specific assets of the trust fund. If thought desirable, separate balance sheets can be prepared for the different types of trusts. Thus a balance

sheet for assessment accounts would show the following assets and liabilities:

Assets	Liabilities
Assessment cash balances..	Notes payable...........
Assessments receivable....	Warrants payable........
Unlevied local assessments.	Reserve for abatement of assessments............
	Surplus.................

CHAPTER XXXIV

THE GENERAL FUND GROUP

THE current requirements of a city demand that funds be raised for the payment of salaries, for the purchase of materials and supplies, for property replacements, and for payments on contracts which have been let. Funds raised to meet these expenditures are placed in the general fund. General fund assets and liabilities originate because of the necessity of carrying on the general work of the city, and include such accounts as cash, taxes levied but uncollected, delinquent taxes receivable, invoices payable, warrants payable, and surplus. Operated in conjunction with the general fund accounts are the related budget accounts. Since the budget accounts show the amounts which have been appropriated to each department, and the revenues which a city expects to realize in order to pay authorizations, the general fund accounts in this group will include estimated revenues, available balances, unapplied general cash balances, appropriations, and reserves. The budget or funding balance sheet is a corollary balance sheet to the general proprietary balance sheet. The elimination of this balance sheet or the elimination of the budget accounts in the ledger would not in the least change the city's current assets and liabilities. It would be difficult, however, to find out whether authorized appropriation balances in a given department were being exceeded, and whether revenues anticipated had come up to expectations.

General Fund Activities

The general fund transactions of a city, involving as they do changes in the current assets and liabilities and in the

related budget accounts, can best be understood by reference to the following activities, some of which are of almost daily occurrence:

1. Determination of departmental expenditures by department heads for the ensuing fiscal period.
2. Authorizations to incur liabilities as shown by the budget prepared by the legislative branch of the city.
3. Estimation of the anticipated revenues which will be available for meeting budget authorizations.
4. Determination of property assessments, the establishment of the tax rate, and preparation of the tax registers showing the taxes assessed against each property owner.
5. Collection of revenues from taxes and from miscellaneous sources.[1]
6. The encumbering of departmental appropriation balances, and the recording of the resultant payrolls, materials invoices, and contractual charges.
7. The issuance and payment of city warrants to liquidate the aforesaid liabilities.
8. Transfer of cash to the sinking or other fund accounts.
9. Closing the general accounts of the city and the preparation of balance sheets, and the determination of unexpended appropriation balances.

To illustrate the above, entries will be given to show the changes taking place in the general fund group of both the proprietary accounts and the budget accounts of the City of X for the year 19—, the budget of which appears on page 415. Before presenting these entries, it is necessary to show the condition of the books of the municipality at the

[1] In many cities the taxes are not collected by city authorities but by county officials, who turn over the proper amount to each of the taxing bodies, park district, city, county, state, school district, *et al.* In such cases the county collector retains a fee for his services. This fee, like tax abatements, should be treated as an appropriation..

close of the preceding year. The balance sheets given below contain the general fund accounts of both the proprietary and budget groups as of the beginning of the current year. All expense and revenue accounts were closed into surplus and the unexpended appropriation balances lapsing at the close of the year were transferred into surplus revenue:

STATEMENT OF THE GENERAL FUND

January 1, 19..

Assets		Liabilities	
Delinquent Taxes......	$63,427.14	Invoices Payable......	$4,000.00
Cash................	36,882.91	Warrants Payable.....	2,018.75
		Surplus Cash over Immediate demands for Cash...............	30,864.16
		Surplus other Assets over other Liabilities.	63,427.14
	$100,310.05		$100,310.05

STATEMENT OF BUDGET ACCOUNTS—GENERAL FUND

January 1, 19..

Debits		Credits	
Available Balance.....	$63,427.14	Reserve for Purchase Orders Issued.......	$44,291.30
Unapplied General Fund Cash Balance.......	30,864.16	Surplus Revenue......	50,000.00
	$94,291.30		$94,291.30

1. Determination of departmental expenditures. The preparation of a department budget does not result in either an increase or decrease of any of the assets or liabilities, and therefore no entry will be made in the general group of proprietary accounts. An estimate of the expenses for the ensuing year does not give a department head or city official the privilege of expending the city's funds; therefore no entry will be made in the general group budget or funding accounts.

2. According to the budget the legislative body of the city authorizes for the ensuing year departmental expenditures aggregating $1,291,465. This involves an entry in the general group of funding accounts as follows:

Budget Revenues	$1,291,465.00	
Appropriations or Authorizations to Incur Liabilities		$1,291,465.00

3. An analysis of the budget shows that there is available surplus revenue of $50,000 and that miscellaneous revenues total $221,650. The balance is to be raised by a general property tax. The following budget entry will be made:

Surplus Revenues	$50,000.00	
Estimated Miscellaneous Revenues	221,650.00	
Estimated Tax Revenues	1,019,815.00	
Budget Revenues		$1,291,465.00

4. City assessors report that taxable properties should be valued for tax purposes at $32,675,000. Since it is necessary to raise $1,019,815 through property taxes a tax rate per hundred dollars of assessed valuation will be determined. Each property owner will accordingly be rendered a bill showing the amount of tax due, which equals his assessment multiplied by the tax rate. The city keeps a record of all taxes levied in a register known as a Tax Duplicate (Form XCIII). When the tax duplicate is prepared, the accounting department is advised as to the gross amount assessed against property owners. The duplicate shows taxes totaling $1,045,311.21. This information will be the basis of two general fund entries, one in the proprietary accounts and the other in the budget accounts. In the proprietary accounts the entry will be:

Current Taxes Receivable	$1,045,311.21	
Revenue from Taxes		$1,045,311.21

In the budget group of accounts this entry will be made:

Available Balances	$1,045,311.21	
Estimated Tax Revenues		$1,045,311.21

5. The revenue received by the city treasurer from taxes levied totals $1,073,918.75, of which $42,018.00 was on

DUPLICATE-PROPERTY TAX ASSESSMENTS
CITY OF X

Ward
Street
Block

Lot Number	Location	Name of Owner	Assessed Value	Tax Rate	Tax	Abatements	Net Tax	Date Paid
		Total Forward						

Form XCIII

PROPERTY TAX DUPLICATE

account of delinquent taxes, and from miscellaneous sources, $237,926.18. The proprietary entry is as follows:

Cash	$1,311,844.93	
Current Taxes Receivable		$1,031,900.75
Delinquent Taxes		42,018.00
Miscellaneous Revenues		237,926.18

To record the receipt of miscellaneous revenues and assessed taxes as per tax receiver's cash book.

The budget entry is:

Unapplied General Fund Cash Balance......	$1,311,844.93	
Estimated Miscellaneous Revenues...		$237,926.18
Available Balances.................		$1,073,918.75

The transfer from estimated miscellaneous revenues and available tax balances to the unapplied cash balances is made to show that assets which are very liquid in character are available for budget expenditures.

6. Departmental commitments, as shown by payrolls and purchase orders issued, amount to $1,209,468.17. The budget entry will show that the appropriations, which up to this point amounted to $1,291,465.00, have now been reduced by $1,209,468.17; the entry will be supported by payroll records, and registers of purchase orders issued and contracts authorized. The maximum available for expenditures cannot be exceeded. The budget entry is:

Appropriations or Authorizations to Incur Liabilities.......................	$1,209,468.17	
Reserve for Purchase Orders Issued...		$1,209,468.17

The above entry is supported by information appearing in registers showing purchase orders which have been signed and issued and the appropriation accounts against which they are to be charged.

Invoices for materials and for services performed in accordance with the terms of purchase orders issued, if properly certified, will be recorded in the Register of Invoices Payable (Form XCIV), the expense or the asset acquired being properly classified. This register may be divided into several sections, one for each main department. At the end of the month the totals of the columns in each section may be used as the basis of journal entries recording the charges against the proper departmental expense control accounts. The details of departmental expenses may be kept in an

Expense Ledger (Form XCV) controlled by a departmental expense account in the General Ledger. The journal entries to record this information are made for the general fund

				DISTRIBUTION											
				Public Safety		Highways		Gen. Gov't.		Street Cleaning		City Properties		etc.	
Date	Inv. No.	Name	Amount	Acct. No.	Amount	Acct. No.	Amount	Acct. No.	Amount	Acct. No.	Amount	Acct. No.	Amount	Acct. No.	Amount
		Total													

FORM XCIV

REGISTER OF INVOICES PAYABLE

Department - Health
Subdivision - Municipal Hospital
Appropriation - $ 15,000

Date	Invoice Number	Name	Amount	Distribution							
				Salaries	Food	Drugs	Fuel	Repairs	Insurance	Clothing	etc.
		Total									

FORM XCV

EXPENSE LEDGER ACCOUNT

proprietary and budget accounts. In the proprietary group the entry is:

Sundry Departmental Expenses	$1,100,000.00	
Invoices Payable		$1,100,000.00

The journal entry in the related budget accounts is:

Reserve for Purchase Orders Issued	$1,100,000.00	
Unapplied General Fund Cash Balance.		$1,100,000.00

The certification and approval of invoices create an immediate demand for cash and thus reduce the unapplied cash balance.

7. When an invoice is approved, the comptroller draws a warrant which the creditor presents to the treasurer for payment. The comptroller of the City of X drew warrants totaling $1,052,760.00 for the payment of invoices received. Warrants are liabilities payable upon demand, and the change from invoices payable to warrants payable is shown in the general fund proprietary accounts:

Invoices Payable	$1,052,760.00	
Warrants Payable		$1,052,760.00

If the city treasurer were to pay $995,000.00 of the above warrants, the journal entry would be:

Warrants Payable	$995,000.00	
Cash		$995,000.00

No supporting budget entries would be required as the status of the budget accounts would not have changed because of either of the preceding transactions.

8. Since the city in its appropriations has made provision for the amortization of the bonded debt, cash will be transferred by the treasurer from the general fund to the sinking fund commissioners. General fund entries will be made affecting the proprietary and budget accounts:

Sinking Fund Expenses	$52,800.00	
Cash		$52,800.00
Appropriations	$52,800.00	
Unapplied General Fund Cash Balance.		$52,800.00

9. In closing the books of the city, the procedure adopted by commercial enterprises is adhered to. The expense and revenue accounts of the general fund group are closed into the surplus account. If, at the end of the fiscal year, there are unexpended appropriation balances, these balances will be closed into surplus revenue. Balances remaining in the estimated miscellaneous revenues are also closed into this account. The closing entries in the proprietary accounts of the general fund group are:

Surplus	$1,152,800.00	
Sundry Departmental Expenses		$1,100,000.00
Sinking Fund Expenses		52,800.00

To close expenses into the general surplus account.

Revenues from Taxes	$1,045,311.21	
Miscellaneous Revenues	237,926.18	
Surplus		$1,283,237.39

To close revenues into the general surplus account.

In the budget or funding accounts the following closing entries appear:

Appropriations	$29,196.83	
Estimated Tax Revenues	25,496.21	
Estimated Miscellaneous Revenues	16,276.18	
Surplus Revenue		$70,969.22

The following statements show the general fund assets and liabilities and the condition of the general fund budget accounts after the closing entries have been made.

General Fund Balance Sheet—Proprietary Accounts

City of X

December 31, 19..

Assets		Liabilities	
Delinquent Taxes	$21,409.14	Invoices Payable	$51,240.00
Current Taxes Receivable	13,410.46	Warrants Payable	59,778.75
General Fund Cash	300,927.84	Surplus Cash over immediate demands for Cash	189,909.09
		Surplus other Assets over other Liabilities	34,819.60
	$335,747.44		$335,747.44

GENERAL FUND BALANCE SHEET—BUDGET ACCOUNTS

CITY OF X

December 31, 19—

Debits		Credits	
Available Balance.....	$34,819.60	Reserve for Purchase Orders Issued.......	$153,759.47
Unapplied General Fund Cash Balance.......	189,909.09	Surplus Revenue......	70,969.22
	$224,728.69		$224,728.69

In addition to the balance sheets of the general fund group, the following statements are presented:

(a) Statement of cash receipts and disbursements
(b) Statement showing the unexpended balance of each appropriation account
(c) Statement of revenue and expenditures (Form XCVI)
(d) Analysis of each departmental appropriation account showing the amounts expended (Form XCVII)

CITY OF ________ OFFICE OF THE COMPTROLLER

Statement of Revenue and Expenditures for the Month Ending ________

Expenditures	Budget Appropriations as Amended to Date	Expenditures for Month Ending				Total	Budget Appropriations Unexpended to Date		
Departmental Expenditures									
Department of Public Affairs:									
Director									
City Clerk,									
City Counsel,									
Fees,									
Weights and Measures,									
Almshouse,									
Tuberculous Hospital,									
Municipal Hospital,									
Elections,									
Total,									
Department of Revenue and Finance:									
Director									
Comptroller,									
Treasurer,									
Receiver of Taxes,									
Assessors,									
District Court,									
Dental Clinic,									
Contingent,									
Total,									
Department of Public Safety:									
Director									
Health,									
Fire,									
Police,									
Garbage and Ashes,									
Police Court,									
Building Inspector,									
Dog Catcher,									
Total,									
Department of Streets and Pub. Improve.,									
Director									
Streets									
Sewers									
Sewer Maintenance,									
Total,									
Dept. of Parks and Public Properties:									
Director									
Parks,									
City Hall,									
Playgrounds,									
Lights,									
Total,									
TOTAL DEPARTMENT EXPENDITURES									
Interest and Sinking Fund:									
Interest on Bonds,									
Interest on Temporary Loans,									
Sinking Fund Instalments,									
Approp'n for Dep'ts Making Separate Rep'ts:									
Public Schools,									
Public Library,									
Art School,									
Total Expenditures									
Balance being—									
Excess of Estimated Revenue over Budget Appropriations,									
Amount Carried to Balance Sheet as Reserve for Expenditures of Current Year.									

Revenue					Estimated	Actual
Surplus Revenue of Preceding Year Brought Forward,						
Unexpended Budget Appropriations,						
Taxes Levied 19						
Real Estate						
Personal,						
State Railroad,						
Franchise,						
Total Levy before Adjustment,						
Additions,						
Deductions,						
Total Levy after Adjustment,						
Less. State School Tax,						
County Tax,						
Net Tax Applicable to City Expenditures,						
Fees, Licenses, etc						
Licenses						
Police Court Fines,						
District Court Costs,						
Building Inspector Fees,						
Search Fees,						
Health Fees,						
City Engineer's Fees,						
City Clerk's Fees,						
Park Rentals, etc.						
Dog Redemption Fees,						
Bond Premiums,						
Fees for Lamps at Railroad Crossings,						
Street Permits,						
Sewer Assessment Interest for Year prior,						
Street Improvement Assessment Interest,						
Delinquent Tax Interest,						
Interest on Bank Deposits,						
Miscellaneous,						
Total Revenue Applicable to City Expenditures,						
Balance, being:						
Excess of Budget Appropriation over Estimated Revenue						
Amount carried to Balance Sheet as a Deferred Charge to Future Revenue and Taxes to be Levied in 19						
$						

FORM XCVI.—STATEMENT OF REVENUE AND EXPENDITURES

CITY OF ________ OFFICE OF THE COMPTROLLER

Statement of Expenditures of the Department of Public Affairs for the ________ Months Ending ________ 19___

Account	Budget Appropriation			Expenditures for ____ Mos. Ending ____				Budget Appropriation Unexpended to Date			Total Expenditures for Similar Periods in Prior Years						Remarks
	Original Amount	Transfers to or from	Amended Amount				Total				Ending ____ Mos. 19__	Ending ____ Mos. 19__	Ending ____ Mos. 19__				
Director:																	
Miscellaneous																	
Salaries																	
Printing and Stationery																	
Traveling Expenses																	
Telephone																	
Extra Clerks,																	
Rent Auto,																	
Total																	
City Clerk:																	
Miscellaneous																	
Salaries																	
Printing and Stationery																	
License Tags,																	
Surety Bonds,																	
Publishing Official Notices and Reports,																	
Recording Fees,																	
Extra Clerks,																	
Total																	
City Counsel:																	
Miscellaneous																	
Salaries,																	
Law Books,																	
Printing and Stationery																	
Court Costs,																	
Surety Bonds,																	
Revision and Codification,																	
Traveling Expenses,																	
Extra Clerks,																	
Total																	
Overseer of Poor:																	
Miscellaneous																	
Salaries																	
Groceries,																	
Drugs,																	
Transportation,																	
Coal,																	
Undertaker,																	
Traveling Expenses																	
Printing and Stationery																	
Furniture and Fixtures for Physicians,																	
Board and Rent for Indigents,																	
Dispensary,																	
Auto Maintenance,																	
Telephone																	
Municipal Cemetery,																	
Total																	
Supt. of Weights and Measures:																	
Miscellaneous																	
Salaries																	
Traveling Expenses																	
Carting,																	
Printing and Stationery																	
Auto Maintenance,																	
Equipment,																	
Surety Bonds,																	
Total																	

Form XCVII.—DEPARTMENTAL APPROPRIATION ANALYSIS

Summary of Accounting Records of the General Fund Group

In the foregoing pages reference has been made to the principal accounting books of a city. The two most important books are the Journal and Ledger. The general ledger control accounts are supported by:

(*a*) Tax Duplicates, showing the detail of the delinquent and current taxes.
(*b*) Miscellaneous Revenue Ledger, containing accounts showing miscellaneous revenues, such as mercantile license charges, unpaid rents, franchise charges, etc.
(*c*) Appropriation Ledgers, detailing the authorizations approved for each department and showing the expenditures made.
(*d*) A Materials and Supplies Ledger, in those cases where the volume of supplies warrants it.
(*e*) An Invoice or Vouchers Payable Ledger, which supports the invoice payable controlling account.
(*f*) Registers of Purchase Orders Issued and Contracts Authorized, containing the detail supporting the corresponding budget accounts.
(*g*) Warrants Register, in which are listed the number of the warrants issued in payment of outstanding invoices.

Journal entries are summary in form and are supported by budget ordinances, the treasurer's statement of cash receipts and disbursements, summaries of purchase orders issued, tax duplicates, stores requisitions, warrants issued, etc.

CHAPTER XXXV

ACCOUNTING FOR SPECIFIC FUNDS

The resources of the general fund are available for the payment of any indebtedness authorized by the legislative body of a municipality. Most cities have, however, in addition to the resources of the general fund, other resources which can be utilized for the payment of specified liabilities. For instance, while the resources of the general fund are usually expended in carrying on the work of the various departments of a city, the resources of specific funds are applied to the payment of special liabilities, or are used to acquire certain kinds of assets. There may be many separate specific funds, each one being used in a manner determined by law. The more important of these specific funds are the Capital Fund, Sinking Fund, and Trust Fund. The Sinking Fund and Trust Fund may be further subdivided, each subdivision created having a particular duty or work to perform. A city having ten bond issues outstanding may have a separate sinking fund for the redemption of each issue. Trust funds may likewise be numerous; the purposes underlying the creation of each trust fund determine the character of the expenditures. The accounting for the Capital Fund will now be discussed, to be followed by a few remarks on the nature and operation of the Sinking Fund and the Trust Fund.

(*A*) *Capital Fund*

Need for Capital Fund Accounts

A city's current operating and administrative requirements as expressed by the general budget are met out of

the funds accumulated through tax levies of various kinds, and appear in that portion of the proprietary accounts designated as current or general account, or current or general fund.

The consumable assets and current liabilities shown in this group form but one part of a city's assets and liabilities. A municipality, like a large business corporation, has need for assets which are permanent. It must decide whether efficiency will result and costs will be lowered by purchasing assets which will have to be replaced each year, or by purchasing assets which will last for many years. If the former idea could be satisfactorily applied, then a municipality would probably finance itself by tax levies only, and all of the accounting would center around the general fund group of proprietary and budget accounts, the latter controlling expenditures. A city, however, does not formulate policies which will require the yearly replacement of assets. Like the business man, it must be guided by future requirements and the profitableness of the investments which it makes. If administrative buildings, libraries, museums, schools, police and fire stations, disposal plants, etc., should all have to be supplied at one time for the general welfare of the citizens, the outlay would be tremendous. Assets of this character may require repairing yearly, but not replacing, since they will serve the purpose for which they were constructed for many years. It is, therefore, not reasonable to suppose that the cost of these assets should be met out of the tax levies for any one year. These assets, once acquired, are of benefit to the citizens for years to come. It is customary, therefore, for cities to finance assets of this type in other ways. The usual plan is to borrow funds by issuing bonds. These bonds may mature serially or they all may fall due at the same time. In either event they must be paid at maturity (the date of payment is sometimes deferred by an issue of refunding bonds), and it is necessary to accumulate funds to retire the bonds as they fall due. If new bonds are not issued

to take up the old, the required funds can be secured only through taxation. If a city were to issue $25,000,000 of bonds due in 25 years, for some contemplated improvements, the funds to repay the issue would be accumulated year by year through taxes. It would be just as unfair to tax the citizens for the $25,000,000 in the year of the maturity of the bonds as it would be to tax them in the year the $25,000,000 was spent for new construction. In the latter case the citizens would be paying in one year for improvements which would benefit the citizens in future years. If the former plan were followed, then the taxpayers shouldering the burden in the year the bonds fell due would be paying for services and benefits rendered many years ago. The obvious method, therefore, is to spread the burden by yearly contributions from taxes to a sinking fund. If the municipality could secure 4 per cent annually on its investments, in order to retire the above bonds at the end of 25 years, and to spread the load equitably over each year, a contribution from taxes amounting to $600,299.07 would have to be made each year to a sinking fund. These yearly contributions together with interest accretions would enable the city to accumulate a sufficient fund to retire the bonds at maturity. Appropriations, shown in the general city budget, would provide for the payment of interest on the outstanding bonds and for the necessary contribution to the fund for retiring the bonds.

The fixed assets, together with those accounts to be converted into fixed assets, such as unexpended cash acquired through bond sales, would be segregated from the general fund assets and carried in that division of the accounts known as the capital fund group, or capital accounts.[1] The capital fund group also contains budget accounts, since it is necessary to keep a check on all funds realized from the sale of authorized bonds, and to see that these funds are

[1] A recent innovation in municipal capital accounting procedure provides for the elimination of the fixed assets and the substitution of an account called, "Revenue to be raised by future taxation."

devoted to the specific purchase or construction for which the bonds were issued. The final accounting for the transactions recorded in these groups takes the form of journal entries and ledger postings. The journal entries are supported by information contained in various books, documents, and records, to which reference will be made as each journal entry is considered.

Let it be assumed that the following assets and liabilities appeared in the capital account balance sheet of the City of X as of January 1, 19—:

Statement as of January 1, 19..

Assets		Liabilities	
Capital Cash........	$6,351.13	Bonded Indebtedness	$570,200.00
Land, Buildings and Structures........	1,099,847.92	Reserve for Depreciation..............	161,000.00
Uncompleted Improvements............	46,214.99	Capital Surplus:	
Furniture, Fixtures and other Equipment.............	84,660.05	Surplus—Cash over immediate demands Cash.............	6,351.13
		Surplus—Other Assets over other Liabilities and Reserves.....	499,522.96
	$1,237,074.09		$1,237,074.09

The status of the supporting budget or funding accounts as of the same date would be reflected in the balance sheet:

Budgeted Loan Funds

Statement of January 1, 19..

Debits		Credits	
Unapplied Capital Cash Balance..............	$6,351.13	Reserve for Contracts...	$6,351.13
	$6,351.13		$6,351.13

Character of Capital Accounts

Cash in the capital accounts balance sheet represents the amount of cash received from the sale of bonds which has not been expended. Land, Buildings, and Structures, is a general ledger controlling account, which may be supported by detailed schedules of land, buildings, and structures, appearing in one or more subsidiary ledgers. Uncompleted Improvements shows the amounts which have been expended on various projects in the course of completion; these may include park improvements, paving improvements, construction of school buildings, police stations, etc. This account is supported by a cost ledger showing the amounts spent on the improvements. This cost ledger shows for each improvement the amount appropriated and the amounts expended; the latter are subdivided into cost divisions which include architects' fees, excavations, engineering, etc. The Bonded Debt of the city appears in detail in the bond ledger. Capital Surplus represents the excess of the capital assets over the capital liabilities. Unapplied Capital Cash Balance is a budget account which shows the amount of cash available for paying encumbered appropriation balances illustrated in this connection by Reserve for Contracts. All the above accounts discussed are general ledger accounts.

To illustrate the journal entries made, involving debits and credits to the above accounts, let us assume that the following activities take place during the fiscal year:

(1) The legislative body of the city authorizes public improvements estimated to cost $2,000,000. To finance the contemplated improvements, bonds to the value of $2,000,000 are to be issued when and as funds are required.

(2) At various times bids for the work are submitted by contractors. Contracts drawn for bids accepted by the city total $1,663,000.

(3) On March 1, when some contracts are well under

way, $1,100,000 of the authorized bonds are sold at par and delivery is made.

(4) Invoices submitted by contractors for work completed in accordance with the terms of their contracts, and audited, total $1,200,000. These include invoices for completion of improvements which were in process at the beginning of the year.

(5) Warrants issued to cover invoices received total $1,050,000.

(6) To pay warrants issued, temporary or emergency loans were authorized, and such loans have been made by the city treasurer to the amount of $150,000.

(7) Warrants paid total $1,012,000.

(8) Additional bonds to the extent of $300,000 are sold at par and delivery is made.

(9) Warrants are drawn to cover temporary loans, and these warrants are presented to the city treasurer for payment.

(10) Completed improvements valued at $850,000 are transferred from Uncompleted Improvements to Land, Buildings and Structures.

(11) Reserve for Depreciation is to be credited with an additional $85,000.

Again we find a limitation placed upon the expenditures of city officials. To know at all times what appropriation balances are unencumbered and what resources are available for meeting these liabilities, budget entries as well as proprietary entries must be made. In order that the distinction between proprietary entries and budget entries may be clearly noted, the entries will be placed in parallel columns. In actual practice the entries would be recorded in regular journal entry form, the type alone differentiating the proprietary from the budget entry.

	Proprietary Entries:			Budget or Funding Entries:		
1.	No entry.			Loans Authorized and Unissued.	$2,000,000.00	
				Bond Fund Appropriations..		$2,000,000.00

If the bond fund appropriations are numerous, the details appear in a subsidiary Bond Fund Appropriation Ledger.

2.	No entry.			Bond Fund Appropriations....	$1,663,000.00	
				Reserve for Contracts.......		$1,663,000.00

The effect of this entry is to record the encumbrance against each bond fund appropriation. The Register of Contracts gives the details of each contract and denotes what appropriation accounts should be charged.

3.	Capital Cash............	$1,100,000.00		Unapplied Capital Cash Balance.................	$1,100,000.00	
	Bonded Indebtedness...		$1,100,000.00	Loans Authorized and Unissued..................		$1,100,000.00

In the proprietary accounts the entry records the sale of bonds, details of which appear in a subsidiary bond ledger. The budget entry shows that Loans Authorized and Unissued have been reduced by $1,100,000, while the capital cash balance has been increased by the same amount.

4. Uncompleted Improvements	$1,200,000.00		Reserve for Contracts.........	$1,200,000.00	
Invoices Payable........		$1,200,000.00	Unapplied Capital Cash Balance..................		$1,200,000.00

Details of the invoices received and audited are entered in the sub-ledger or Cost Ledger of Uncompleted Improvements, and show the exact charge to be made against each improvement. The audited invoices are likewise recorded in the Register of Invoices Payable. The auditing and approving of invoices can be construed as reducing the amount of capital cash which is unapplied.

5. Invoices Payable..........	$1,050,000.00		No entry.
Warrants Payable.......		$1,050,000.00	

Since a warrant is an order drawn by the comptroller on the treasurer requesting that payment be made to cover claims due, the budget entry made in (4) above is often deferred until warrants are issued, the warrants rather than the audited vouchers being the basis of the entry reducing Unapplied Cash Balance.

6. Capital Cash...............	$150,000.00		Unapplied Capital Cash Balance......................	$150,000.00	
Temporary Loans.......		$150,000.00	Reserve for Temporary Loans		$150,000.00

The borrowing of funds increases capital cash and creates a corresponding liability. A loan is authorized like an appropriation, but instead of carrying the new budget account as an appropriation, a reserve account may be created.

7. Warrants Payable.........	$1,012,000.00		No entry.
Capital Cash...........		$1,012,000.00	

The paying of a warrant reduces cash and decreases a liability. The adjustment of unapplied capital cash was previously made in the budget accounts.

8. Capital Cash	$300,000.00		Unapplied Capital Cash Balance	$300,000.00	
Bonded Indebtedness		$300,000.00	Loans Authorized and Unissued		$300,000.00

This transaction is similar to (3), above.

9. Temporary Loans	$150,000.00		Reserve for Temporary Loans	$150,000.00	
Warrants Payable		$150,000.00	Unapplied Capital Cash Balance		$150,000.00
Warrants Payable	$150,000.00		No entry.		
Capital Cash		$150,000.00			

The issuance of a warrant in this instance reduces Unapplied Capital Cash Balance. The budget entry is similar to (4), above.

10. Land, Buildings and Structures	$850,000.00		No entry.		
Uncompleted Improvements		$850,000.00			

Information regarding the improvements completed appears in the subsidiary ledger for land, buildings, and structures.

11. Capital Surplus	$85,000.00				
Reserve for Depreciation		$85,000.00	No entry.		

The above entries are made as occasion demands, and merely summarize more detailed entries. After all postings have been made to the general ledger accounts, the following balance sheets can be presented:

CAPITAL ACCOUNT BALANCE SHEET

Statement as of December 31, 19..

Assets		Liabilities	
Capital Cash	$394,351.13	Bonded Indebtedness	$1,970,200.00
Land, Buildings and Structures	1,949,847.92	Invoices Payable	150,000.00
Uncompleted Improvements	396,214.99	Warrants Payable	38,000.00
Furniture and Fixtures	84,660.05	Reserve for Depreciation	246,000.00
		Capital Surplus:	
		Surplus cash over immediate demands for cash	206,351.13
		Surplus other assets over other liabilities and reserves	214,522.96
	$2,825,074.09		$2,825,074.09

BUDGETED LOAN FUNDS

Statement as of December 31, 19..

Debits		Credits	
Loans Authorized and Unissued	$600,000.00	Bond Fund Appropriations	$337,000.00
Unapplied Capital Cash Balance	206,351.13	Reserve for Contracts	469,351.13
	$806,351.13		$806,351.13

The above shows that contracts which have been let and which in all probability will become liabilities total $469,351.13. Appropriations unencumbered total $337,000. These prospective liabilities can be paid from the proceeds

of unissued loans which may be sold, and from the unencumbered capital cash balance of $206,351.13.

A city in undertaking certain kinds of improvements, such as street paving, often assesses the property owners directly benefiting thereby. The assessment may repay the city in full or it may only represent a certain precentage of the value of the improvement. If in the illustration covering improvements $100,000 was spent on street paving, the city might assess the benefiting property owners $50,000. The assessment would be equivalent to a tax, and a journal entry might be made in the proprietary accounts charging Assessments Receivable and crediting Capital Surplus. Very often improvements undertaken by a city, the cost of which is to be borne by the city and benefiting taxpayers, are handled through special funds, known as trust funds, which will be discussed later.

(*B*) *Sinking Fund*

Nature of Sinking Fund

A sinking fund is usually created for the purpose of accumulating cash or other assets for the payment of liabilities which are to mature. To establish a sinking fund, assets may be contributed by other funds, or a tax may be levied, or certain existing revenues may be appropriated. Once the fund has been established it may grow slowly through interest earnings, or more rapidly through transfers from other funds. The general budget as a rule contains an appropriation for the sinking fund. Sinking fund accounts should show at all times the cash, securities, and other assets actually on hand, and also the amount which should be on hand. If a city were to sell an issue of bonds totaling $1,000,000 maturing in 10 years, yearly contributions would have to be made to the sinking fund in order to enable the city to pay its bond obligation at maturity. If the city could earn 4 per cent on its sinking fund contributions the amount which would have to be contributed yearly would

be $83,291. The net assets at any given time should equal the theoretical value of the sinking fund at that time. Sinking fund requirement entries are therefore budget control entries, while the sinking fund assets and liabilities are proprietary. Let it be assumed that the following balance sheets relate to the sinking fund activities of the City of X as of January 1, 19—:

Sinking Fund Balance Sheet

Assets		Liabilities	
Sinking Fund Cash	$80,000	Reserve to Retire Bonds	$80,000
	$80,000		$80,000

Sinking Fund Requirements Balance Sheet

Debits		Credits	
Unapplied Sinking Fund Cash	$80,000	Reserve to Retire Bonded Debt at Maturity	$80,000
	$80,000		$80,000

During the current year the following proprietary and budget entries would be made:

Proprietary			**Budget or Funding**		
(1) None.			Sinking Fund Requirements...	$56,000.00	
			Reserve to Retire Bonded Debt at Maturity........		$56,000.00

This entry is to set up sinking fund requirements for the year. The requirements are to be met by interest accretions and contributions from the general fund. It is assumed that sinking fund cash will earn 4 per cent and that the necessary contribution from the general fund, according to a mathematical calculation, is $52,800.

(2) Sinking Fund Cash........	$3,200.00		Unapplied Sinking Fund Cash..	$3,200.00	
Reserve to Retire Bonds..		$3,200.00	Sinking Fund Requirements..		$3,200.00

Interest earnings credited by banks on sinking fund balances.

(3) Sinking Fund Cash........	$52,800.00		Unapplied Sinking Fund Cash..	$52,800.00	
Reserve to Retire Bonds..		$52,800.00	Sinking Fund Requirements..		$52,800.00

For contributions received from the general fund.

(4) Sinking Fund Investments..	$100,000.00		Sinking Fund Investments.....	$100,000.00	
Sinking Fund Cash......		$100,000.00	Unapplied Sinking Fund Cash		$100,000.00

Investments made by sinking fund trustees from cash balances.

The balance sheet as of December 31, 19—, would show the following:

SINKING FUND BALANCE SHEET—December 31, 19..

Assets		Liabilities	
Sinking Fund Cash......	$36,000	Reserve to Retire Bonds..	$136,000
Sinking Fund Investments................	100,000		
	$136,000		$136,000

SINKING FUND REQUIREMENTS BALANCE SHEET—December 31, 19..

Debits		Credits	
Unapplied Sinking Fund Cash..............	$36,000	Reserve to Retire Bonded Debt at Maturity.....	$136,000
Sinking Fund Investment................	100,000		
	$136,000		$136,000

Statements of sinking funds and their operation are usually accompanied by statements of sinking fund cash receipts and disbursements. The books and records of the sinking fund trustees are limited to a cash book, register of securities owned, and reports to be forwarded at intervals to the city comptroller.

(C) *Trust Fund*

The third division of specific fund accounting pertains to trust funds. These accounts should be kept separate from the general, capital, and sinking fund groups. They deal with resources and liabilities which are handled by the city in an advisory or agency capacity. The accounts of public utility enterprises operated by the city belong in this group. Assessment accounts, covering improvements undertaken by a city, the financing of which may be borne partly by the city and partly by taxpayers who are directly bene-

fited, are also included. There is no uniformity in accounting for assessments, and they are sometimes handled as sinking fund accounts, especially in those instances when proceeds from assessments are to be utilized in retiring assessment bonds. The trust funds also include resources administered by the city acting in the capacity of a trustee in accordance with the wishes of certain individuals.

When the trust fund group includes accounts representing the operating of utilities, for various reasons the utility accounts must be separated from other accounts in the group. Any profit arising from the operation of these enterprises can be utilized to reduce taxation requirements as shown by the budget. On the other hand, deficits incurred can only be met out of the general fund. The net results of the operations of the utilities appear in the trust fund balance sheet. The accounts kept and the methods of recording the utility operations are similar to those employed by private corporations in the conduct of similar enterprises. Budget accounts are often set up in conjunction with the proprietary accounts of this group. They are similar to the budget accounts of the general fund group covering appropriations, reserves, unapplied cash balances, surplus, etc.

Improvements must be authorized by an ordinance, which provides the necessary appropriation and the means for financing it. Contracts for making the improvements must be let, and invoices rendered must be paid. After completion of the improvements the benefiting property owners are assessed. Assessments levied are entered in an Assessments Receivable account, which is controlling in nature. Details appear in subsidiary ledgers and show the names and addresses of the property owners assessed, and the character of the assessment, such as paving, curbing, grading, etc. Finally the amount of the city's share of the improvement, together with the offsetting amount of indebtedness incurred, should be transferred to the capital division of the city's accounts. The collection of the assessments, therefore, by the trust division should provide sufficient cash

for the retirement of that portion of the debt incurred by the city which was assessed against the property owners.

The character and content of the proprietary and budget entries which are made in this group will be similar to the general fund, the capital fund, and the sinking fund entries. Attention, therefore, will only be called to the trust balance sheets of the City of X as of December 31, 19—.

Trust Fund Balance Sheet, December 31, 19..

Assets		Liabilities	
Gas Plant	$387,282.65	Bonds	$462,200.00
Local Improvements not assessed	83,983.20	Invoices Payable	2,651.85
Assessments Receivable	24,646.27	Police and Fire Pension Fund Reserve	22,126.79
Cash	108,487.36	Gas Plant Surplus	7,755.55
Police and Fire Pension Fund	22,126.79	Trust Fund Surplus Cash over immediate demands for cash	105,835.51
City's Share Improvements	39,423.66	Surplus Assets over all other liabilities and reserves	65,380.23
	$665,949.93		$665,949.93

Funding Balance Sheet

Trust Funds

December 31, 19..

Debits		Credits	
Unapplied Trust Fund Cash Balance	$105,835.51	Improvement Appropriations	$50,000.00
Available Balance	24,646.27	Reserve for Contracts	80,481.78
	$130,481.78		$130,481.78

ANNUAL REPORT

Requirements of an Annual Report

In preparing the annual statement showing the operations and financial condition of a city, a comptroller may submit considerable information concerning the city's accounts. The annual report may contain:

(*a*) Statements of Appropriations authorized for the
  General Fund
  Specific Funds
    Capital Fund
    Sinking Funds
    Trust Funds

(*b*) Statements of Cash Receipts and Disbursements in connection with each of the funds.

(*c*) Balance Sheets covering each of the funds divided into
    Proprietary Accounts
    Budget or Funding Accounts

(*d*) Consolidated Balance Sheet of all funds divided:
    Proprietary Accounts
    Budget or Funding Accounts

(*e*) Details of the Bonded Indebtedness

(*f*) Exhibits showing
    Changes in capital surplus during the year
    Composition of fixed assets
    Delinquent taxes
    Securities in the Sinking Funds

(*g*) Appropriations and Expenditures of each department showing unexpended balances.

(*h*) Comparative Statements of various kinds, such as
    Valuation of Assessed Properties
    Changes in tax rates over a series of years
    Comparative administrative costs, etc.

A considerable proportion of the information furnished in the statements and exhibits listed above is obtained from records previously mentioned.

Construction of the Consolidated Balance Sheet

The Consolidated Balance Sheets are summaries of the accounts appearing in the General Ledger. So far, in these chapters, each section or division of the accounts of a municipality has been presented as if it were distinct and separate from all other divisions. In reality all accounts listed in the foregoing descriptions of the General, Capital, Sinking, and Trust Funds, with the exception of utility accounts, appear in the General Ledger. Consolidated Balance Sheets or Divisional Balance Sheets could be separately prepared from a trial balance of the City of X, which would reveal the following account balances:

TRIAL BALANCE—December 31, 19..

CITY OF X

Delinquent Taxes	$21,409.14	
Current Taxes Receivable	13,410.46	
General Fund Cash	300,927.84	
Available Balance General Fund	34,819.60	
Unapplied General Fund Cash Balance	189,909.09	
Warrants Payable—General Fund		$59,778.75
Invoices Payable—General Fund		51,240.00
Surplus—General Fund		224,728.69
Reserve for Purchase Orders Issued—General Fund		153,759.47
Surplus Revenue—General Fund		70,969.22
Capital Cash	394,351.13	
Land, Buildings and Structures—Capital Account	1,949,847.92	
Uncompleted Improvements—Capital Account	396,214.99	
Furniture, Fixtures and Other Equipment—Capital Account	84,660.05	

Bonded Debt—Capital Account........		1,970,200.00
Invoices Payable—Capital Account.....		150,000.00
Warrants Payable—Capital Account....		38,000.00
Reserve for Depreciation..............		246,000.00
Capital Surplus......................		420,874.09
Loans Authorized and Unissued........	600,000.00	
Unapplied Capital Cash Balance.......	206,351.13	
Bond Fund Appropriations............		337,000.00
Reserve for Contracts................		469,351.13
Sinking Fund Cash...................	36,000.00	
Unapplied Sinking Fund Cash..........	36,000.00	
Sinking Fund Investments.............	100,000.00	
Sinking Fund Investments.............	100,000.00	
Reserve to Retire Bonds..............		136,000.00
Reserve to Retire Funded Debt at Maturity............................		136,000.00
Gas Plant............................	387,282.65	
Local Improvements not assessed.......	83,983.20	
Assessments Receivable...............	24,646.27	
Cash—Trust Fund....................	108,487.36	
Police and Fire Pension Fund..........	22,126.79	
City's Share Improvements—Trust Funds............................	39,423.66	
Unapplied Trust Fund Cash Balances...	105,835.51	
Available Balance—Trust Funds.......	24,646.27	
Improvement Appropriations—Trust Funds............................		50,000.00
Reserve for Contracts—Trust Funds....		80,481.78
Bonds Outstanding—Trust Funds......		462,200.00
Invoices Payable—Trust Funds........		2,651.85
Police and Fire Pension Fund Reserve..		22,126.79
Gas Plant Surplus....................		7,755.55
Surplus—Trust Funds................		171,215.74
	$5,260,333.06	$5,260,333.06

By grouping accounts of like character, the city's financial condition can be shown in two Consolidated Balance Sheets, one for the proprietary accounts and one for the budget accounts.

Statement of Proprietary Accounts—December 31, 19..

CITY OF X

Assets

Cash	$839,766.33
Taxes and Assessments	59,465.87
Pension Funds	22,126.79
Investments	100,000.00
Land, Buildings, Structures and Improvements	2,376,554.23
Uncompleted Improvements	480,198.19
Furniture and Fixtures	84,660.05
	$3,962,771.46

Liabilities

Bonded Debt	$2,432,400.00
Warrants and Invoices Payable	301,670.60
Reserves:	
For Depreciation	246,000.00
For Trust Accounts	22,126.79
For Bonded Debt Retirement	136,000.00
Surplus—Cash over Immediate Requirements	538,095.73
Surplus—Other assets over other liabilities	286,478.34
	$3,962,771.46

Statement of Funding Accounts—December 31, 19..

CITY OF X

Debits

Loans Authorized and Unissued	$600,000.00
Available Balances	59,465.87
Unapplied Cash Balances	538,095.73
Sinking Fund Investments	100,000.00
	$1,297,561.60

Credits

Appropriations Unencumbered	$387,000.00
Reserves for Contracts, Bonded Debt Retirement, and Purchase Orders	839,592.38
Surplus Revenue—Unappropriated	70,969.22
	$1,297,561.60

The consolidated balance sheets prepared by municipal accounting officers may vary from the form presented herewith. The assets and liabilities of the various groups may be stated separately. Fund resources and appropriations may be intermingled with the assets and liabilities. Another presentation calls for the separation of real and contingent accounts, real assets and real liabilities being shown separately from the contingent assets and contingent liabilities, the contingency items consisting of bond appropriation and encumbered general appropriation balances offset by fund resources such as bonds unissued and special revenue requirements.

QUESTIONS AND PROBLEMS

(a) Questions

1. Contrast the general fund and capital fund groups of accounts employed in the accounting system of a municipality.

2. Define and distinguish:

   (*a*) Unencumbered balances and budget authorizations.
   (*b*) Appropriations and reserve for contracts.
   (*c*) Current account balance sheet; capital account balance sheet; fund balance sheet.
   (*d*) Unapplied net cash balance and available balance.
   (*e*) Taxes receivable and tax abatements.

3. Indicate whether the following accounts are proprietary or fund (budget) accounts, and their corresponding account in the other group, if any; also whether they are used in the general fund, capital fund, trust fund, or sinking fund division of the activities of the city:

   (*a*) Loans authorized and unissued.
   (*b*) Sinking fund cash.
   (*c*) Reserve for depreciation on permanent properties.
   (*d*) Current taxes receivable.
   (*e*) Reserve for tax abatements.
   (*f*) Warrants payable.
   (*g*) Unapplied balance.
   (*h*) Reserve for contracts.
   (*i*) Appropriations.
   (*j*) Bonded indebtedness outstanding.

4. What are the purposes of the budget accounts of a municipality?

5. What is the purpose of a consolidated municipal balance sheet? How should it be prepared or arranged?

6. Contrast private and municipal accounting.

7. Journalize the following transactions placing the proprietary and budgetary entries in parallel columns:

(1) An improvement project was estimated to cost $193,000.
(2) Voters authorized a bond issue of $200,000 and an appropriation was made to cover the estimated cost.
(3) Contracts let totaled $187,500.
(4) Bonds were sold at 101.
(5) Warrants issued against contracts, $185,000.
(6) Unexpended balance of contracts was canceled.
(7) Other expenses, not contractual, but for improvement in progress, totaled $8,000, and warrants were issued to cover same.
(8) Warrants paid totaled $189,300.

8. Contrast the purposes of financial (proprietary) accounting and budget (fund) accounting.

(b) Problems

1. The City of Arkantex supplied the following information for the year:

General Fund

1. Account balances January 1:

Reserve for tax abatements	$1,200
Delinquent taxes	18,641
Cash	35,872
Warrants payable	15,190
Reserve for contracts	4,387
Reserve for open market orders	1,323
Available balance	18,641
Unapplied (net cash) balance	20,682
Surplus revenue	32,413

2. Authorized appropriations $227,700, including $6,500 reserve for tax abatements and $25,000 for sinking fund requirements.

3. Estimated miscellaneous revenue $12,400; amount appropriated from surplus revenue $10,000; balance to be raised by taxation.

4. Taxes levied as per tax duplicates, $198,600.

5. The city treasurer reported collections as follows:

Taxes, current year	$184,590
Miscellaneous revenue	13,100
Delinquent taxes	13,511

6. Taxes abated:

Current	$5,060
Delinquent	1,130

7. Contracts authorized, $156,950; Purchase orders issued, $29,235.
8. Warrants issued:

   For contracts $157,490, charge current expenses.
   For open market orders $29,491, charge current expenses.
   For sinking fund $25,000.

9. Warrants paid, $195,127.

Prepare:

1. Entries for proprietary and fund accounts of the general fund group.
2. Closing entries.
3. Balance sheets as of December 31:
   (*a*) Proprietary accounts.
   (*b*) Fund accounts.

2. Prepare in journal entry form the entries necessary to record the following transactions on the books of a municipality. Give an explanation for each, indicating whether it is a proprietary or a budget entry.

(1) At a special election the voters authorized the issuance of school bonds in the amount of $1,000,000.

(2) The bonds were sold at par.

(3) Contracts were let for the building of new schools, totaling $900,000.

(4) Warrants in the amount of $800,000 were issued on account of contracts completed.

(5) Warrants were paid totaling $700,000.

3. The following information concerns the operation of the general fund of Wharton City for the past year:

(1) Estimated tax revenues	$1,344,780
Estimated miscellaneous revenues	183,851
	$1,528,631

(2) Authorized appropriations were:

General Government	$124,680
Dept. of Public Safety	610,822
Dept. of Streets and Public Property	629,708
Dept. of Public Health	31,380
Commissioners of the sinking fund	83,291
Reserve for tax abatement	48,750
	$1,528,631

(3) The tax duplicates showed total taxes of $1,344,750.

(4) The following cash receipts were reported by the city treasurer:

Taxes	$1,274,200
Miscellaneous revenues	184,951

(5) Taxes remitted and abated 44,755

(6) Contracts were authorized for the following departments:

General Government	$3,105
Public Safety	14,207
Streets and Public Property	403,100
Public Health	1,635
	$422,047

(7) Purchase orders for the following departments were issued:

General Government	$57,983
Public Safety	56,662
Streets and Public Property	90,315
Public Health	8,563
	$213,523

(8) Warrants were issued as follows:

For contracts	$391,823
Open market orders	202,500
Payroll General Government	63,001
Payroll Dept. of Public Safety	538,601
Payroll Dept. of Streets and Public Property	129,150
Payroll Dept. of Public Health	26,561
Commissioners of the sinking fund [1]	83,291
	$1,434,927

Above warrants were charged as follows: Sundry assets $416,800; sinking fund expenses $83,291; current expenses $934,836.

(9) Warrants paid amounted to $1,292,931.

(10) A threatened appropriation deficit in the Department of Public Health was met by transferring $5379 to this department from the Department of Streets and Public Property.

(11) Sundry assets were transferred to the equipment account in the capital fund group of accounts.

[1] Transfer from the general fund to sinking fund for sinking fund purposes.

Prepare:

1. Entries in journal form for the proprietary accounts and for the fund accounts of the general fund groups.
2. Closing entries.
3. Balance sheets of proprietary and fund accounts.

4. To illustrate further the operation of the appropriation ledger of the City of Wharton, the following information is given relative to the Department of Public Safety. Fill in the last column with the unencumbered balance of appropriations for each bureau in the department and for each item in the Police Bureau.

DEPARTMENT OF PUBLIC SAFETY

Bureau	Appropriation	Contracts Authorized	Purchase Orders	Payroll	Warrants Issued	Unencumbered Appropriations
Director	$10,600		$250	$10,350	$10,500	
Police	331,600	$6,100	10,003	314,900	321,600	
Fire	199,422	5,600	35,240	158,501	194,206	
Electrical	16,200	2,507	2,407	11,150	16,000	
Building Inspector	16,000		200	15,800	15,990	
Steam Eng. and Boiler Insp.	8,800		200	8,500	8,650	
Elevator Inspection	7,000		100	6,900	6,970	
Maintenance and Repairs	21,200		8,262	12,500	17,200	
	$610,822	$14,207	$56,662	$538,601	$591,116	

The details of the status of the appropriation to the Bureau of Police are as follows:

BUREAU OF POLICE

Account	Appropriation	Contracts Authorized	Purchase Orders Issued	Payroll	Warrants Issued	Unencumbered Appropriations
Salary:						
Supt.	$8,000			$8,000	$8,000	
Asst. Supt.	5,000			5,000	5,000	
Clerks (6)	10,200			10,150	10,150	
Captains (2)	7,200			7,200	7,200	
Lieutenants (4)	12,000			12,000	12,000	
Sergeants (10)	23,000			22,925	22,925	
Detectives (4)	8,400			8,400	8,400	
Patrolmen—1st Class (100)	190,000			190,000	188,490	
2nd Class (29)	46,400			46,250	46,100	
Maintenance of Motor Vehicles	8,000		$5,486	2,325	6,140	
Uniforms	6,150	$6,100			300	
Detectives' Traveling Expenses	3,150		3,123		2,924	
Maintenance of Station Houses	3,100		411	2,650	3,011	
Maintenance of Prisoners	1,000		983		960	
	$331,600	$6,100	$10,003	$314,900	$321,600	

5. The following are the property account balances on the books of the City of Wharton as of the close of the preceding fiscal year:

Bonds authorized and unissued	$76,000.00
Cash	70,750.00
Equipment	620,500.00
Improvements in progress	490,800.00
Permanent bonds	3,120,000.00
Permanent properties	4,044,600.00
Reserve for temporary improvement notes	24,000.00
Reserve for contracts	74,750.00
Sinking fund	572,000.00
Surplus	2,030,650.00
Temporary improvement notes	24,000.00
Unapplied capital cash balance	50,750.00
Unencumbered balance of bond fund appropriations	28,000.00
Warrants payable	20,000.00
Reserve for depreciation	604,000.00

The following is a summary of the transactions which took place during the current year:

(1) The voters authorized a $600,000 bond issue for paving of streets. Bonds up to this amount are to be issued as required.

(2) Contracts amounting to $587,000 were drawn on bids accepted for the above project.

(3) In order to finance immediate construction pending sale of bonds, temporary improvement notes to the amount of $30,000 were sold.

(4) The $76,000 of bonds authorized last year and $600,000 authorized this year were sold over the counter at 98 for cash.

(5) Invoices amounting to $650,000 were received from contractors and audited. Of this amount, $78,000 applied to work commenced last year.

(6) Warrants were issued to the amount of $673,000 including $54,000 to pay off temporary loans.

(7) Warrants to the amount of $675,000 were paid in cash.

(8) Improvements started during the past two years and completed this year amounted to $1,138,000, and were transferred to permanent properties account.

(9) Reserve for depreciation was credited with $165,000.

(10) $83,291 was transferred from the general fund to the sinking fund.

(11) $29,800 interest was earned and received in cash on the investments of the sinking fund.

(12) Securities in the sinking fund costing $21,000 were sold at a profit of $500.

(13) Bonds amounting to $125,000 were retired through the sinking fund.

(14) Sundry assets to the amount of $416,800 were transferred from the general fund group of accounts to the equipment account in the capital fund group of accounts.

From the above prepare:

(*a*) Proprietary and budgetary entries.
(*b*) Resultant balance sheets as of the close of the year.

6. The balance sheet of Budget City, as prepared by the comptroller as of the close of the fiscal year, is presented herewith:

BALANCE SHEET—AUGUST 31, 1933

Assets		*Liabilities*	
Cash	$84,352	Warrants payable	$26,210
Taxes receivable	38,408	Temporary loans (secured by tax notes)	25,600
Assessments receivable	31,068	Bonds payable	400,000
Sinking fund securities	36,000	Assessment bonds payable	30,000
Property and equipment	465,000	Reserve for depreciation	74,200
Improvements in progress	32,291	Sinking fund reserve	40,000
		Surplus	91,109
	$687,119		$687,119

The city is desirous of setting up proper fund accounts in addition to the accounts now appearing on its books. No budgetary accounts have ever been carried by the city.

(*a*) The cash balance of $84,352 contains $3061 of assessment cash, $41,329 of capital cash, and $4000 of cash belonging to the sinking fund. The balance belongs to the general fund.
(*b*) Of the warrants payable, $14,209 represents warrants issued for improvements in progress. Balance belongs to general fund.
(*c*) Reserve for contracts against improvements in progress total $27,120. No other outstanding contracts exist.

Prepare balance sheets showing the status of the proprietary and the fund accounts in each of the following groups:

(*a*) General fund.
(*b*) Capital fund.
(*c*) Sinking Fund.
(*d*) Assessment fund.

7. The following are the balance sheets of the City of Maleppa, December 31. Prepare consolidated balance sheets.

BALANCE SHEETS—DECEMBER 31

General Fund Balance Sheet

Proprietary Accounts

Assets		Liabilities	
Cash	$47,309	Warrants payable	$5,201
Taxes receivable	25,976	Temporary loans	25,600
		Surplus:	
		Cash over immediate demands for cash	42,108
		Other assets over other liabilities	376
	$73,285		$73,285

General Fund Balance Sheet

Budget Accounts

Debits		Credits	
Unapplied net cash balance	$42,108	Reserve for contracts	$2,800
Available balance	25,976	Reserve for temporary loans	25,600
		Surplus revenue	39,684
	$68,084		$68,084

Capital Fund Balance Sheet

Proprietary Accounts

Assets		Liabilities	
Cash	$18,629	Warrants payable	$6,509
Property and equipment	503,911	Bonds payable	400,000
Improvements in progress	8,380	Reserve for depreciation	113,700
Sinking fund	48,000	Capital surplus	58,711
	$578,920		$578,920

Capital Fund Balance Sheet

Budget Accounts

Debits		Credits	
Bonds authorized and unissued	$100,000	Bond fund appropriations	$87,860
Unapplied (net cash) balance	12,120	Reserve for contracts	24,260
	$112,120		$112,120

Assessment Fund Balance Sheet

Proprietary Accounts

Assets		Liabilities	
Cash	$7,986	Assessment bonds payable	$30,000
Assessments receivable	26,143	Surplus	4,129
	$34,129		$34,129

Assessment Fund Balance Sheet

Budget Accounts

Debits		Credits	
Unapplied net cash balance	$7,986	Reserve for bonds payable	$30,000
Available balance	26,143	Surplus	4,129
	$34,129		$34,129

Sinking Fund Requirements Balance Sheet

Debits		Credits	
Sinking fund requirements	$1,250	Reserve to retire bonded debt at maturity	$49,250
Unapplied sinking fund cash	5,000		
Sinking fund investments	43,000		
	$49,250		$49,250

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